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ABSTRACT

This booklet presents an overview of the findings pertaining to eighth, tenth, and twelfth grade students from the 1999 Monitoring the Future Study. This overview focuses on recent trends in the use of various licit and illicit drugs. It also examines trends in the levels of perceived risk and personal disapproval associated with each drug, which this study has shown to be important in explaining trends in use. The first section of findings presents trends in the overall proportions of students at each grade level reporting illicit drug use of any kind. A separate section is then presented for each class of drugs. These classes are: marijuana; inhalants; LSD; cocaine; crack cocaine; amphetamines; methamphetamine and ice; heroin, tranquilizers; barbiturates; club drugs--rohypnol and ecstasy; alcohol; cigarettes; and steroids. These sections contain graphs showing tends in past-year use and trends in perceived risk, disapproval, and perceived availability. The statistics underlying the trend lines contained in these graphs are given in the tables at the end of the report. These tables contain data on lifetime prevalence, thirty-day prevalence, and daily prevalence. They also indicate, for each prevalence period, which one-year changes are statistically significant. (MKA)

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Monitoring the Future

National Results on Adolescent Drug Use

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Overview of Key Findings

1999

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
National Institutes of Health

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THE MONITORING THE FUTURE

NATIONAL RESULTS ON ADOLESCENT DRUG USE

Overview of Key Findings, 1999

by

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Table of Contents

Introduction 1

Study Design and Methods 2

Overview of Key Findings 3

Specific Results by Drug

- Any Illicit Drug Use 6
- Marijuana 8
- Inhalants 10
- LSD 12
- Cocaine 14
- Crack Cocaine 16
- Amphetamines 18
- Methamphetamine and Ice 20
- Heroin 22
- Tranquilizers 24
- Barbiturates 26
- Club Drugs—Rohypnol and Ecstasy 28
- Alcohol 30
- Cigarettes 32
- Steroids 34

Subgroup Differences 36

Tables Covering All Drugs

1. Trends in Lifetime Prevalence of Use 38
2. Trends in Annual and 30-Day Prevalence of Use 41
3. Trends in Current Daily Prevalence of Use 44
   Footnotes for Tables 1-3 45
4. Trends in Perceived Harmfulness 46
5. Trends in Disapproval 47
6. Trends in Perceived Availability 48

Introduction

Monitoring the Future is a long-term study of American adolescents, college students, and young adults. It is conducted by the University of Michigan's Institute for Social Research and is supported under a series of investigator-initiated, competing research grants from the National Institute on Drug Abuse.

This volume presents an overview of the key findings from the 1999 survey of 8th, 10th, and 12th grade students, with a particular emphasis on recent trends in the use of the various licit and illicit drugs covered by the study. It also shows trends in the levels of perceived risk and personal disapproval associated with each drug, which this study has shown to be particularly important in explaining trends in use.

The first section of findings presents trends in the overall proportions of students at each grade level reporting illicit drug use of *any* kind.

A separate section is then presented for each class of drugs. These sections contains graphs showing trends in past-year use and (when available) trends in perceived risk, disapproval, and perceived availability. The statistics underlying the trend lines contained in these graphs are given in the tables at the end of this report, covering the period 1991-1999.[1] These tables also contain the data on lifetime prevalence, 30-day prevalence, and (for selected drugs) daily prevalence.[2] Furthermore, the tables indicate, for each prevalence period, which 1998-1999 one-year changes are statistically significant.

A more extensive analysis of the study's findings on secondary school students may be found in a volume to be published later this year.[3] The volumes in this series also contain a more complete description of the study's methodology as well as an appendix on how to test the significance of differences between groups or for the same group over time.

The study's findings on American college students and young adults are not covered in this early highlights report because the 1999 data are not available at the time of this writing. They are covered in a second series of volumes that will be updated later this year.[4] Volumes in these two annual series are available from the National Clearinghouse for Alcohol and Drug Information at (800) 729-6686 or by e-mail at *info@health.org*.

Further information on the study, including its latest press releases and a listing of all publications, may be found on the Web at *www.MonitoringTheFuture.org*.

[1] Statistics for the earlier period, 1975-1990, may be found on the project's Web site or in its annual volumes, both of which are referenced in this section.

[2] Prevalence refers to the proportion or percentage of the sample reporting use of the given substance on one or more occasions in the given period—e.g., lifetime, past 12 months, or the past 30 days. The prevalence of daily use usually refers to use on 20 or more occasions in the past 30 days.

[3] The most recent in this series is: Johnston, L. D., O'Malley, P. M., and Bachman, J. G. (1999). *National survey results on drug use from the Monitoring the Future study, 1975-1998: Volume I, Secondary school students*. (NIH Publication No. 99-4660). Bethesda, MD: National Institute on Drug Abuse.

[4] *Ibid., Volume II, College students and young adults. (NIH Publication No. 99-4661).*

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Study Design and Methods

At the core of *Monitoring the Future* is a series of large, annual surveys of nationally representative samples of students in public and private secondary schools throughout the coterminous United States. Every year since 1975 a national sample of 12th graders has been surveyed; beginning in 1991, the study was expanded to include comparable national samples of 8th graders and 10th graders each year.

Sample Sizes

The 1999 sample sizes were 17,300, 13,900, and 14,100 in 8th, 10th, and 12th grades, respectively. In all, about 45,000 students in 433 schools participated. Because multiple questionnaire forms are administered at each grade level, and because not all questions are contained in all forms, the numbers of cases upon which a particular statistic are based can be less than the total sample. The tables at the end of this volume contain the sample sizes associated with each statistic.

Field Procedures

University of Michigan staff members administer the questionnaires to students, usually in their classrooms during a regular class period. Participation is voluntary. Questionnaires are self-completed and formatted for optical scanning. In 8th and 10th grades the questionnaires are completely anonymous, and they are confidential in 12th grade (to permit the longitudinal follow-up of a sub-sample of participants for some years after high school in a panel study).

Measures

A standard set of three questions is used to determine usage levels for the various drugs (except for cigarettes). To take LSD as an example, we ask, "On how many occasions (if any) have you used LSD ("acid")...(a)...in your lifetime?, (b)...during the past 12 months?, (c)...during the last 30 days?" Each of the three questions is answered on the same answer scale: 0 occasions, 1-2, 3-5, 6-9, 10-19, 20-39, and 40 or more occasions. For the psychotherapeutic drugs (amphetamines, barbiturates, tranquilizers, and opiates other than heroin), respondents are instructed to include only use "...on your own—that is, without a doctor telling you to take them."

For cigarettes, respondents are asked two questions about use: "Have you ever smoked cigarettes?" (for which the answer categories are "never," "once or twice," and so on); and "How frequently have you smoked cigarettes during the past 30 days?" (for which the answer categories are "not at all," "less than one cigarette per day," "one to five cigarettes per day," "about one-half pack per day," etc.)

Alcohol use is measured using the three questions illustrated above for LSD. A similar set of three questions asks about the frequency of being drunk and another question asks, for the prior two-week period, "How many times have you had five or more drinks in a row?"

Perceived risk is measured by a question asking, "How much do you think people risk harming themselves (physically or in other ways), if they..." "...try marijuana once or twice," for example. The answer categories are "no risk," "slight risk," "moderate risk," "great risk," and "can't say, drug unfamiliar."

Disapproval is measured by the question, "Do YOU disapprove of people doing each of the following?" followed by "trying marijuana once or twice," for example. Answer categories are: "don't approve," "disapprove," "strongly disapprove," and (in 8th and 10th grades only) "can't say, drug unfamiliar."

Availability is measured by the question, "How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?" followed by "marijuana (pot, grass)," for example. Answer categories are: "probably impossible," "very difficult," "fairly difficult," "fairly easy," and "very easy."

Overview of Key Findings

The surveys of 8th, 10th, and 12th grade students in the United States conducted in 1999 generated mixed results.

Drugs Holding Steady

After one or two years of decline, **overall illicit drug use** among teens remained steady in 1999 in all three grades, as did the use of a number of important specific drugs—**marijuana**, **amphetamines**, **hallucinogens taken as a class**, **tranquilizers**, **heroin**, and **alcohol**. (Chapters specific to each of these drugs may be found later in this volume.)

Marijuana is the most widely used illicit drug. The annual prevalence rates in grades 8, 10, and 12, respectively, are 17%, 32%, and 38%. Current daily prevalence rates (defined as the proportion using it on 20 or more occasions in the prior thirty days) are 1.4%, 3.8%, and 6.0%. Annual prevalence peaked in 1996 for 8th graders and a year later in the upper grades.

Drugs Increasing in Use

While the use of a number of drugs held steady in 1999, the use of certain other drugs increased, while the use of others decreased.

The most important increases were observed in MDMA ("ecstasy") among older students, and in steroid use among younger adolescent males.

Ecstasy—a so-called "club drug" because of its popularity at night clubs and "raves"— showed a sharp rise in use in 1999 among older teens, following several years of gradual decline. (Over the prior two-year interval, ecstasy use had declined at all three grade levels.) Exactly why it made a comeback in 1999 is not entirely clear, but the results show that the increase occurred primarily in the Northeast and in large cities. About one in twenty 10th and 12th grade students indicated using ecstasy sometime during the prior 12 months (4.4% and 5.6%, respectively).

Steroid use among younger male teens also increased in 1999. Roughly one in every 40 boys in 8th (2.5%) and 10th (2.8%) grades indicated some steroid use during the prior year—a statistically significant increase over 1998, when the rates were 1.6% and 1.9% respectively. (Rates of use are much lower among girls, and their use changed little in 1999.) Concurrent with this year's sharp increase in use was a sharp drop in the amount of risk 12th graders (the only ones asked this question) saw as associated with steroid use in 1999. It seems likely that students at all grade levels would have shown such a decline, were the data available. Steroid use had been rising gradually since 1992 among 12th graders.

Drugs Decreasing in Use

While MDMA and steroid use were rising in 1999, the use of a number of other drugs showed some decline—and in some cases this amounted to the continuation of a longer-term decline.

Inhalant use, for example, continued a gradual decline—one that has been ongoing for the past four years. Inhalants, the only class of drugs which tends to be more popular among younger teens than older ones, include a wide range of common household products that youngsters inhale or "huff" in order to get high, such as glues, solvents, butane, gasoline, and aerosols. The annual prevalence rates for 8th, 10th, and 12th graders in 1999 were 10%, 7%, and 6%, respectively.

Rohypnol—a so-called "date rape drug" about which there was considerable concern in recent years—showed a small decline in use in all three grades this year. The annual prevalence rates are quite low—ranging from 0.5% in 8th grade to 1.0% in 10th and 12th grades.

Crack use declined in 1999 among 8th graders for the first time in some years and leveled among 10th graders. Since crack use had been rising slowly but steadily at all grade levels through most of the '90s, these developments were welcome—particularly considering how dangerous this drug is. Annual prevalence for crack stands at 1.8%, 2.4%, and 2.7% at grades 8, 10, and 12.

Crystal methamphetamine (or "ice"), another dangerous stimulant, exhibited a significant decline in 1999 among 12th graders (the only grade level at which use is asked). The annual prevalence of ice use in 12th grade fell from 3.0% in 1998 to 1.9% in 1999.

In sum, while the use of a number of illicit drugs remained stable, and a couple (ecstasy and steroids) made a resurgence, use of several important classes of drugs declined in 1999.

Reasons for the Diverging Trends

The wide divergence in the trajectories of the different drugs in this single year helps to illustrate the point that, to a considerable degree, the determinants of use are often specific to the drugs. These determinants include both the *perceived benefits* and the *perceived risks* that young people come to associate with each drug.

Unfortunately, word of the supposed benefits of using a drug usually spreads much faster than information about the adverse consequences. The former takes only rumor and a few testimonials, the spread of which has been hastened greatly by the electronic media and the Internet. The latter—the perceived risks—usually take much longer for the evidence (e.g., of death, disease, overdose reactions, addictive potential) to cumulate *and* then to be disseminated. Thus, when a new drug comes onto the scene, it has a considerable "grace period" during which its benefits are alleged and its consequences are not yet known.

Implications for Prevention

To some considerable degree, prevention must occur drug by drug, because knowledge of the adverse consequences of one drug will not necessarily generalize to the use of other drugs. Many of young people's beliefs and attitudes are specific to the drug. A review of the charts in this volume on perceived risk and disapproval for the various drugs—attitudes and beliefs which we have shown to be important in explaining many drug trends over the years—will amply illustrate this contention. These attitudes and beliefs are at quite different levels for the various drugs and, more importantly, often trend differently over time.

New Drugs Help to Keep the Epidemic Going

Another point well illustrated by this year's results is the continuous flow of new drugs introduced onto the scene or being "rediscovered" by young people. Many drugs have made a comeback years after they first fell from popularity, often because young people's knowledge of their adverse consequences faded as generational replacement took place. We call this process "generational forgetting." Examples of this include LSD and methamphetamine, two drugs used widely in the beginning of the broad epidemic of illicit drug use, which originated in the late '60s. Heroin, cocaine, PCP, and crack are some others that made a comeback after their initial popularity faded.

As for newer drugs coming onto the scene for the first time, examples include the nitrite inhalants and PCP in the '70s, crack and crystal methamphetamine in the '80s, and rohypnol and then GHB in the '90s. (Questions on GHB, another club drug, will be added to the study in the next survey.) The perpetual introduction of new drugs (or of new forms of taking older ones, as illustrated by crack and crystal methamphetamine) helps to keep the country's "drug problem" alive. Because of the lag times described previously, during which evidence of

adverse consequences must cumulate and be disseminated, the forces of containment are always playing "catch up" with the forces of encouragement and exploitation.

Where Are We Now?

As the country closes its books on the twentieth century, clearly the problems of substance abuse remain widespread among American young people. Today over half (55%) have tried an illicit drug by the time they finish high school. Indeed, if inhalant use is included in the definition of an illicit drug, more than a third (37%), have done so as early as 8th grade—when most students are only 13 or 14 years old. Between a quarter and a third (29%) have tried some illicit drug *other* than marijuana by the end of 12th grade, and 21% of 12th graders used some illicit drug other than marijuana in just the 12 months prior to the survey.

Cigarettes and Alcohol

The statistics for use of the licit drugs, cigarettes and alcohol, are also alarming. Nearly two-thirds (65%) have tried **cigarettes** by 12th grade, and over a third (35%) of 12th graders are current smokers. Even as early as 8th grade, nearly half (44%) have tried cigarettes, and 18% already are current smokers. Fortunately, we have seen some improvement in smoking statistics in just the last couple of years, after a dramatic increase in these rates earlier in the '90s.

Cigarette use reached its recent peak in 1996 at grades 8 and 10, capping a rapid climb of some 50% since 1991, when data first were gathered on these grades. Since 1996, smoking in these grades has fallen off some, and it continued to do so in 1999. In 12th grade, the peak occurred a year later, in 1997, from which there has been only a modest decline. (See the section on cigarettes for more detail.)

Alcohol use also is extremely widespread among today's teenagers. Four out of every five students (80%) have consumed alcohol (more than just a few sips) by the end of high school; and about half (52%) have done so by 8th grade. In fact, 62% of the 12th graders and 25% of the 8th graders in 1999 report having been drunk at least once. To a considerable degree, alcohol trends have tended to parallel the trends in illicit drug use. These trends include some modest increase in binge drinking (defined as having five or more drinks in a row at least once in the past two weeks) in the early part of the '90s, with a proportionally smaller increase than was seen for most of the illicit drugs. Fortunately, binge drinking rates leveled off two or three years ago, just about when the illicit drugs began a turnaround.

In the remainder of this report, separate sections are provided for each of the many classes of illicit drugs, but we will first consider the proportions of American adolescents who use any drug, regardless of type. *Monitoring the Future* routinely reports three different indexes of illicit drug use—an index of "any illicit drug use," an index of the use of "any illicit drug other than marijuana," and an index of the use of "any illicit drug including inhalants."[5] In this section we discuss the first two, but the statistics for the third may be found in Table 1.

In order to make comparisons over time, we have kept the definitions of these indexes constant, even though some new substances appear as time passes. The index levels would be little affected by the appearance of these new substances, however, primarily because almost all users of them are also using the more prevalent drugs included in the indexes. The major exception has been inhalants, the use of which is quite prevalent in the lower grades. For this reason, a special index was created to include inhalants, after the lower grades were added to the study in 1991.

Trends in Use

In the last third of the twentieth century, young Americans achieved extraordinary levels of illicit drug use, either by historical comparisons in this country or by international comparisons with other countries. The trends in lifetime use of **any illicit drug** are given in the first panel on the facing page.[6] By 1975, when the study began, the majority of young people (55%) had used an illicit drug by the time they left high school. This figure rose to two-thirds (66%) by 1981, before a long and gradual decline to 41% by 1992—the low point. Today, the proportion is back to 55%, after a period of considerable rise in the '90s. The comparable trends for annual, as opposed to lifetime, prevalence appear in the second (upper right) panel. They show some falloff after 1996 among 8th graders, and after 1997 in the two upper grades, but no further change in 1999.

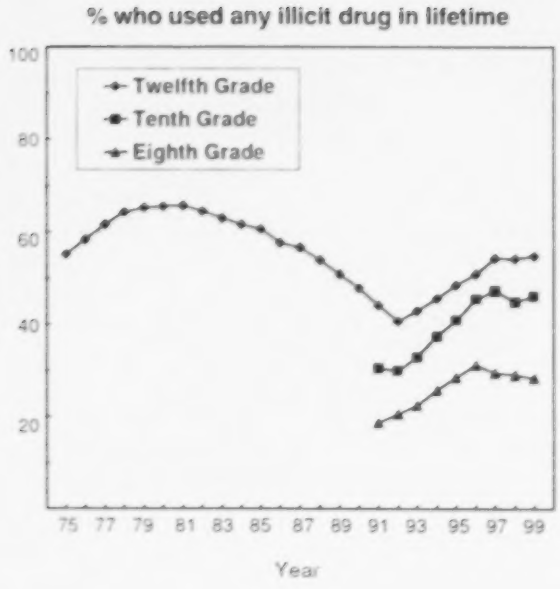
Because marijuana is so much more prevalent than any other illicit drug, trends in its use tend to drive the index of "any illicit drug use." For this reason we have an index excluding marijuana use, showing the proportion of these populations willing to use other so-called "harder" illicit drugs. The proportions using **any illicit drug other than marijuana** are lower, of course, but still impressive (third panel, lower left). In 1975 over one-third (36%) of 12th graders had tried some illicit drug other than marijuana. This figure rose to 43% by 1981, followed by a long period of decline to a low of 25% in 1992. Some increase followed in the '90s, as the use of a number of drugs rose steadily, and it reached 30% by 1997. (In 1999 it was 29%.) The fourth panel presents the *annual* prevalence data for the same index, which shows a pattern of change over the past few years similar to the index of any illicit drug use.

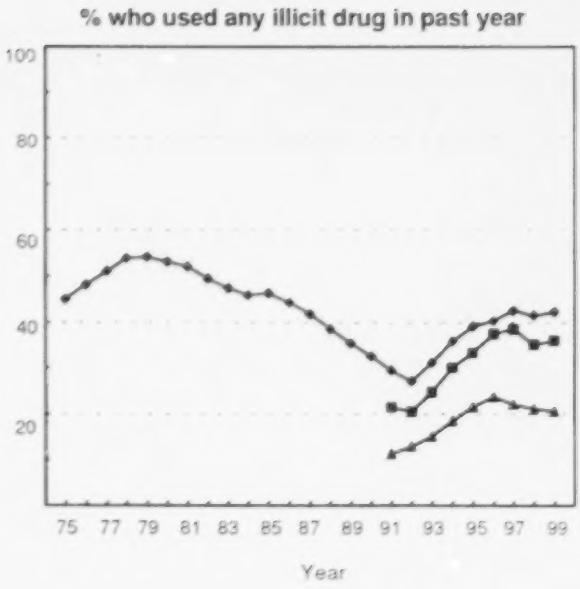
Overall, these data reveal that, while use of individual drugs (other than marijuana) may fluctuate widely, the proportion using *any* of them is much less labile. In other words, the proportion of students prone to using such drugs, and willing to cross the normative barriers to such use, changes more gradually. The individual drugs, on the other hand, react to many determinants specific to them: how widely their psychoactive potential is recognized, how favorable the reports of their supposed benefits are, how risky it is seen to use them, how acceptable they are in the peer group, how accessible they are, and so on.

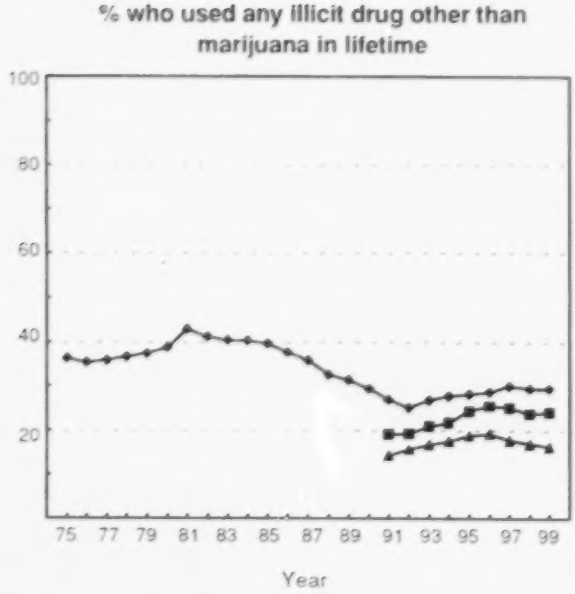
[5] Footnote 1 to Tables 1 through 3 provides the exact definition of "any illicit drug."

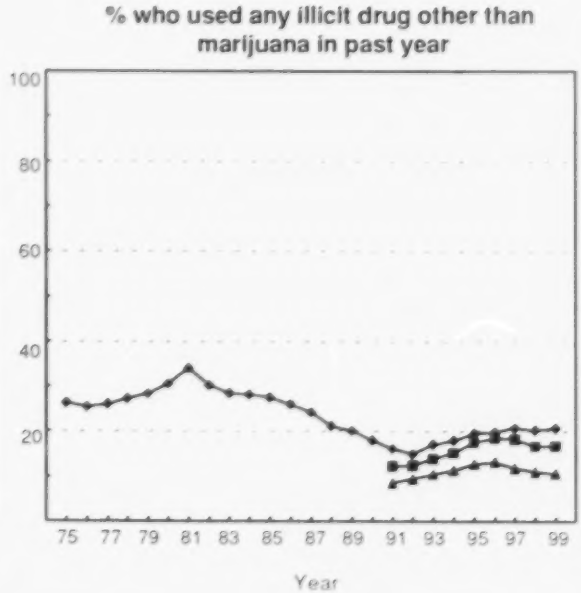
[6] This is the only set of figures in this volume presenting lifetime use statistics. For other drugs, lifetime statistics may be found in the tables at the end of the volume.

Trends in Illicit Drug Use
Eighth, Tenth, and Twelfth Graders









Marijuana

Marijuana has been the most widely used illicit drug for the 25 years of this study, and almost certainly for some years before that, as well. While marijuana can be taken orally in food and can be smoked in a concentrated form as hashish—the use of which is much more common in Europe—nearly all consumption in this country involves smoking it in rolled cigarettes ("joints"), in pipes, or, more recently, in hollowed-out cigars ("blunts").

Trends in Use

Annual marijuana use peaked at 51% among 12th graders in 1979, following a rise that likely began in the '60s. Then use declined fairly steadily for thirteen years, bottoming at 22% in 1992—a decline of more than half. The '90s, however, saw a resurgence in use. After a considerable increase in the '90s (one that actually began among 8th graders a year earlier than among 10th and 12th graders), annual prevalence rates peaked in 1996 at 8th grade and in 1997 at 10th and 12th grades. Some decline followed, though there was no further decline observed in 1999, specifically.

Perceived Risk

The amount of risk associated with using marijuana fell during the earlier period of increased use and again during the more recent resurgence of use in the '90s. Indeed, at 10th and 12th grades, perceived risk began to decline a year *before* use began to rise in the upturn of the '90s, making perceived risk a leading indicator of change in use. (The same may have happened at 8th grade, as well, but we do not have data starting early enough to check that possibility.) The decline in perceived risk halted after 1997 in 8th and 10th grade, and use began to decline a year or two later. Again, perceived risk was a leading indicator of change in use.

Disapproval

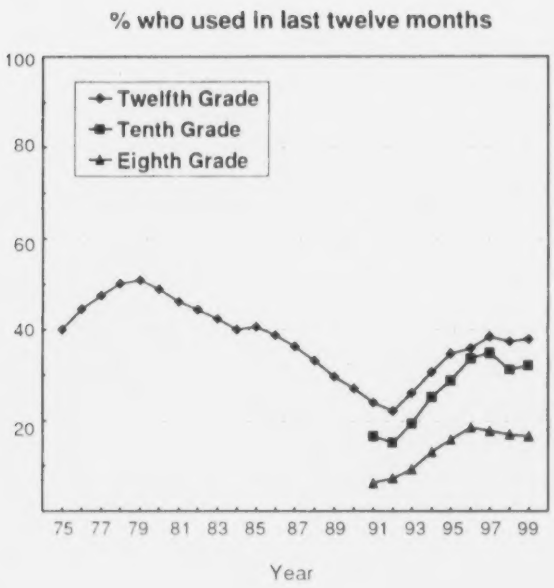
Personal disapproval of marijuana use slipped considerably among 8th graders between 1991 and 1996, and among 10th and 12th graders between 1992 and 1997. For example, the proportions of 8th, 10th, and 12th graders, respectively, who said they disapproved of trying marijuana once or twice fell by 17, 21, and 19 percentage points over those intervals of decline. There has since been a little increase in disapproval among 8th and 10th graders but not yet among 12th graders.

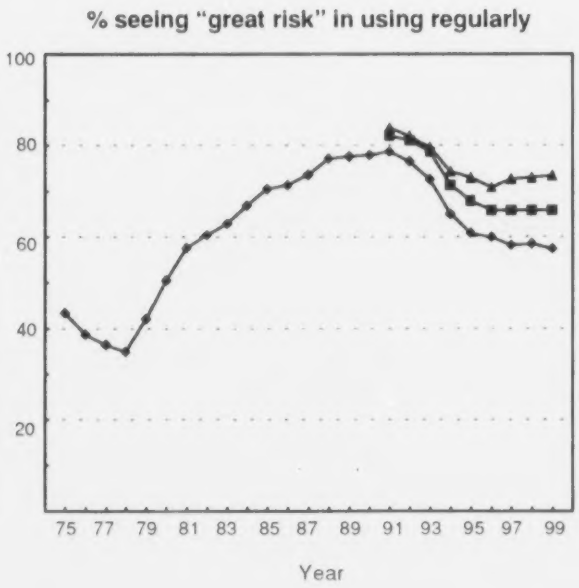
Availability

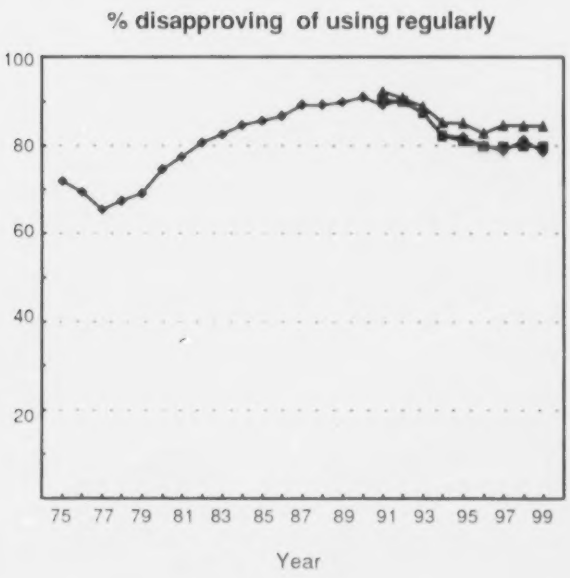
Since the study began in 1975, between 83% and 90% of every senior class has said that they could get marijuana fairly easily or very easily if they wanted some; therefore, it seems clear that this has remained a highly accessible drug. Since 1991, when data were also available for 8th and 10th graders, we have seen that marijuana tends to be less accessible to younger adolescents. Still, in 1999 nearly half of all 8th graders (48%) and more than three-quarters of all 10th graders (78%) reported it as being accessible. This compares to 89% for seniors.

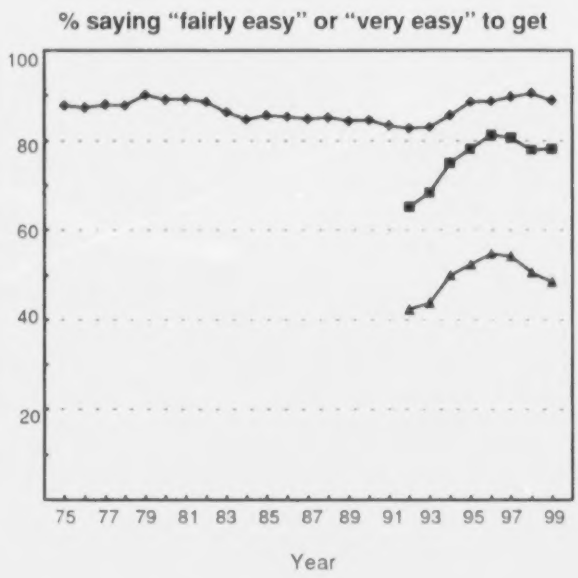
As marijuana use rose sharply in the early and mid-'90s, reported availability increased as well, perhaps reflecting the fact that more young people had friends who were users. Availability peaked for 8th and 10th graders in 1996 and has shown a modest falloff since. Availability peaked a bit later for 12th graders.

Marijuana: Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Inhalants

Inhalants are any gases or fumes that can be inhaled for the purpose of getting high. These include many household products, the sale and possession of which is perfectly legal, including such things as airplane glue, nail polish remover, gasoline, solvents, butane, and propellants used in certain commercial products, such as whipped cream dispensers. Unlike nearly all other classes of drugs, their use is most common among younger adolescents and tends to decline as youngsters grow older. The early use of inhalants may reflect the fact that many inhalants are cheap, readily available, and legal. The decline in use with age no doubt reflects their coming to be seen as "kids' drugs." Also, a number of other drugs become accessible to older adolescents who are more able to afford to buy them.

Trends in Use

According to the long-term data from 12th graders, inhalant use (excluding the use of nitrite inhalants) rose gradually for some years, from 1976-1987. This rise in use was somewhat unusual in that most other forms of illicit drug use were in decline during the 1980s. Use rose among 8th and 10th graders from the time data were first gathered on them, 1991, through 1995, and also rose among 12th graders from 1992-1995. All grades have shown a steady decline in use since then. The Partnership for a Drug Free America launched an anti-inhalant advertising initiative in 1995, which may help to explain the turnaround in use after that point.

Perceived Risk

Only 8th and 10th graders have been asked questions about the degree of risk they associate with inhalant use. Relatively low proportions of them think that there is a "great risk" in using an inhalant once or twice, although there was an upward shift in this belief between 1995 and 1996, specifically.

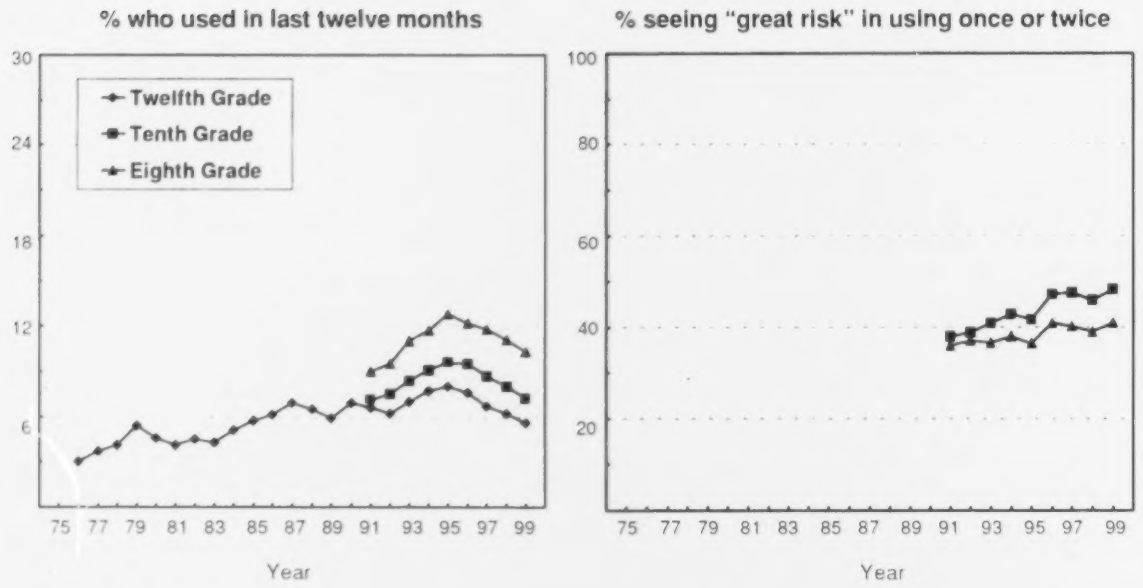
Disapproval

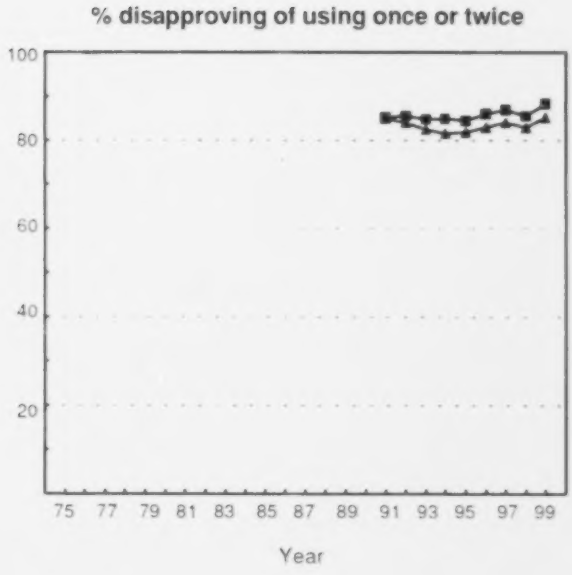
Quite high proportions say they would disapprove of even trying an inhalant. There has been a slight upward drift in this attitude since 1995, including a significant increase in both 8th and 10th grades in 1999.

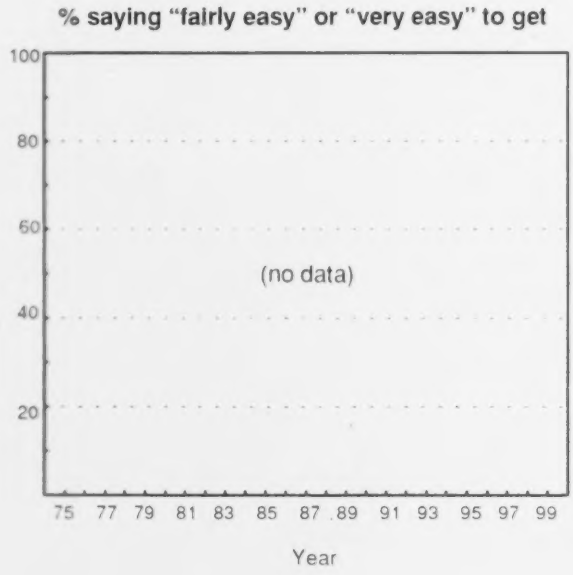
Availability

Respondents have not been asked about the availability of inhalants, because we have assumed that these substances are universally available to young people in these age ranges.

Inhalants: Trends in Annual Use, Risk, and Disapproval
Eighth, Tenth, and Twelfth Graders







LSD

LSD is the most widely used drug within the larger class of drugs known as hallucinogens. Statistics on overall hallucinogen use, and on the use of hallucinogens other than LSD, may be found in the tables at the end of this report.

Trends in Use

The annual prevalence of LSD use has remained below 10% for the last 25 years. Use had declined some in the first 10 years of the study, likely continuing a decline that had begun before 1975. Use had been fairly level in the latter half of the '80s, but, as was true for a number of other drugs, use rose in all three grades between 1991 and 1996. Use in all three grades is now below the peak level reached in 1996, but is not yet down by much. Only 8th graders showed a continuation of the decline in use in 1999, and that one-year change did not reach statistical significance.

Perceived Risk

We think it likely that perceived risk for LSD use had grown in the early '70s, before this study began, as concerns about possible neurological and genetic effects spread (most were never scientifically confirmed), and also as concern about "bad trips" grew. However, there was some decline in perceived risk in the late '70s. The degree of risk associated with LSD experimentation then remained fairly level among 12th graders through most of the '80s but began a substantial decline after 1991, dropping 12 percentage points by 1997, before leveling. From the time that perceived risk was first measured among 8th and 10th graders, in 1993, through 1998, perceived risk fell in both of these grades, as well.

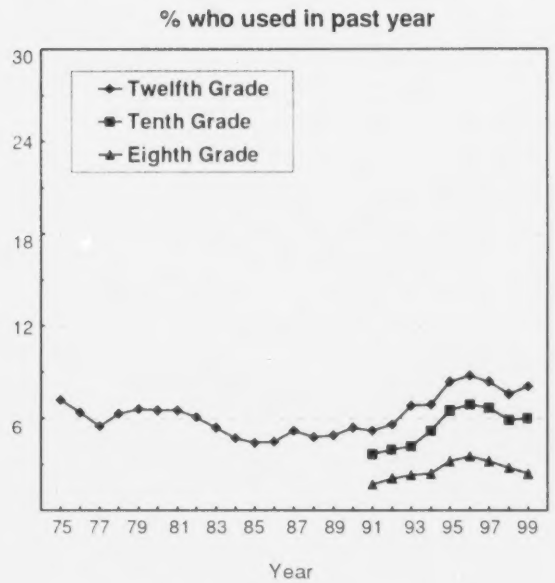
Disapproval

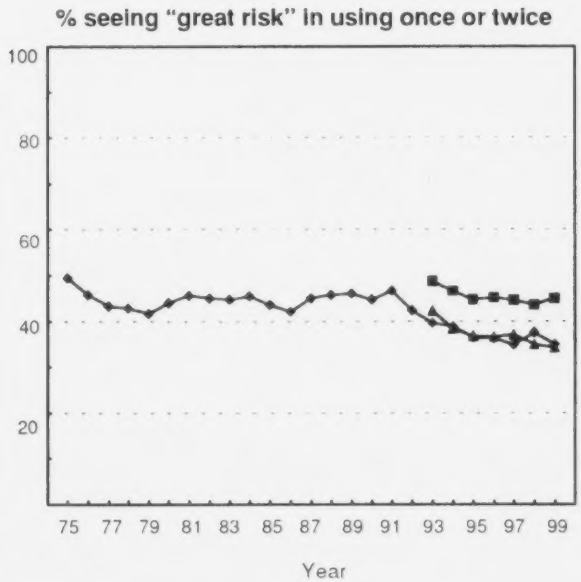
Disapproval of LSD use was quite high among 12th graders through most of the '80s but began to decline after 1991 along with perceived risk. All three grades exhibited a decline in disapproval through 1996, with disapproval of experimentation dropping a total of 11 percentage points between 1991 and 1996 among 12th graders. Among 12th graders, there has been a slight increase in disapproval since 1997. In the other two grades, disapproval leveled in 1999.

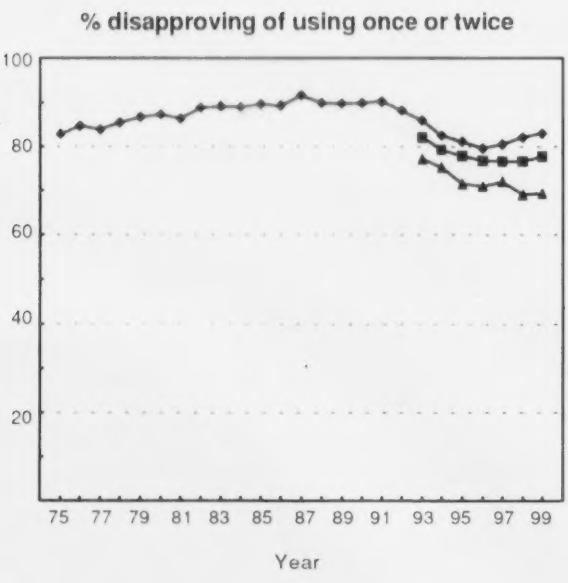
Availability

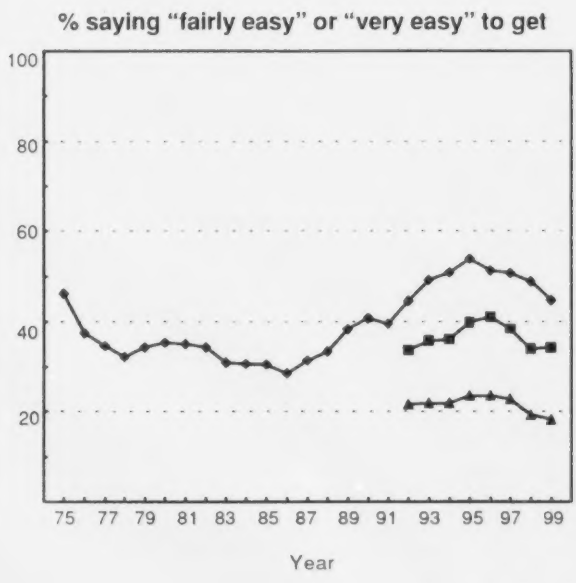
Reported availability of LSD by 12th graders has varied quite a bit over the years. It fell considerably from 1975-1983, remained level for a few years, and then began a substantial rise after 1986, reaching a peak in 1995. LSD availability also rose among 8th and 10th graders in the early '90s, reaching a peak in 1995 or 1996. There has been some falloff in availability in all three grades since those peak years.

LSD: Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Cocaine

For some years cocaine was used almost exclusively in powder form, though freebasing emerged for awhile. Then in the early '80s came the advent of crack cocaine. Our original questions did not distinguish among different forms of cocaine or different modes of administration, but simply asked about using cocaine. The findings contained in this section report on the results of those more inclusive questions asked of 12th graders over the years.

In 1987 we also began to ask separate questions about the use of crack cocaine and "cocaine other than crack," which was comprised almost entirely of powder cocaine. Data on these two components of overall cocaine use are contained in the tables in this report, and crack is discussed in the next section.

Trends in Use

There have been some important changes in the levels of overall cocaine use (which includes crack) over the life of the study. Use among 12th graders originally burgeoned in the late '70s, then remained fairly stable through the first half of the '80s, before starting a precipitous decline after 1986. Annual prevalence among 12th graders dropped by about three-quarters between 1986, when it was 12.7%, and 1992, when it was 3.1%. Between 1992 and 1999, use reversed course again and doubled to 6.2%, a level still well below the peak levels in the mid-'80s. Use also rose in 8th and 10th grades after 1992, before leveling in 8th grade after 1996 and in 10th after 1997.

Perceived Risk

Global questions (not distinguishing between crack and other forms) about the dangers of cocaine use and the degree of disapproval of cocaine use, have been asked only of 12th graders. The results tell a fascinating story, however. They show that perceived risk for experimental use fell in the late '70s (when use was rising), stayed level in the first half of the '80s (when use was level), and then jumped very sharply in a single year (between 1986 and 1987), just when the substantial decline in use began. The year 1986 was marked by a crescendo of a national media frenzy over crack cocaine, but perhaps more importantly, by the widely-publicized cocaine-related death of Len Bias, a National Basketball Association first-round draft pick. Bias' death was originally reported as resulting from his first experience with cocaine. Though that later turned out not to be the case, the message had already "taken." We believe this event helped to persuade many young people that use of cocaine at any level, no matter how healthy the individual, was dangerous. Risk continued to rise through 1990 as the fall in use continued. But, between 1992 and 1999, a period of increasing use among 12th graders, perceived risk fell gradually.

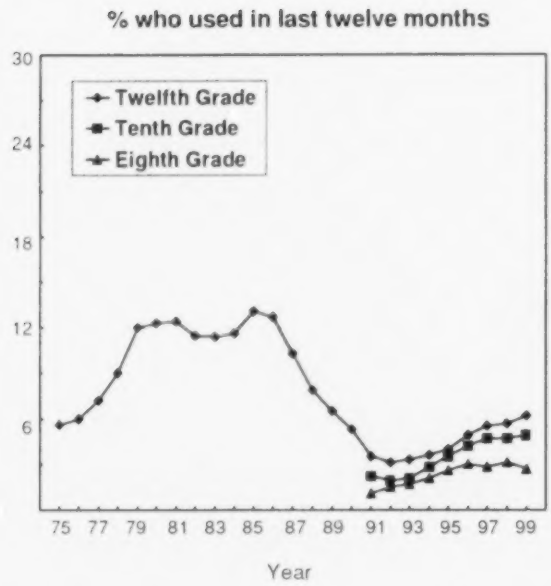
Disapproval

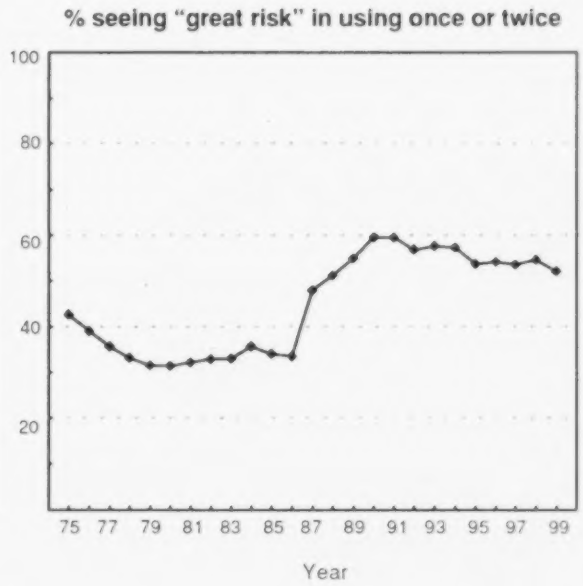
Disapproval of cocaine use by 12th graders followed a cross-time pattern similar to that for perceived risk, although the jump in 1987 was not quite so pronounced (a 7 percentage point jump vs. a 14 percentage point one-year jump in perceived risk). However, disapproval started from a higher base.

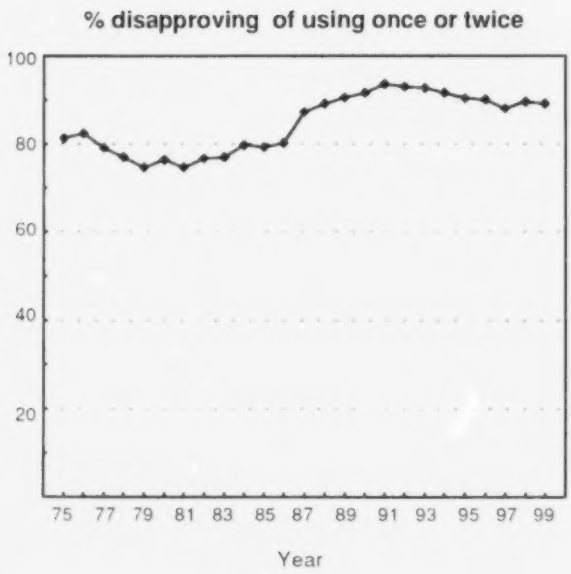
Availability

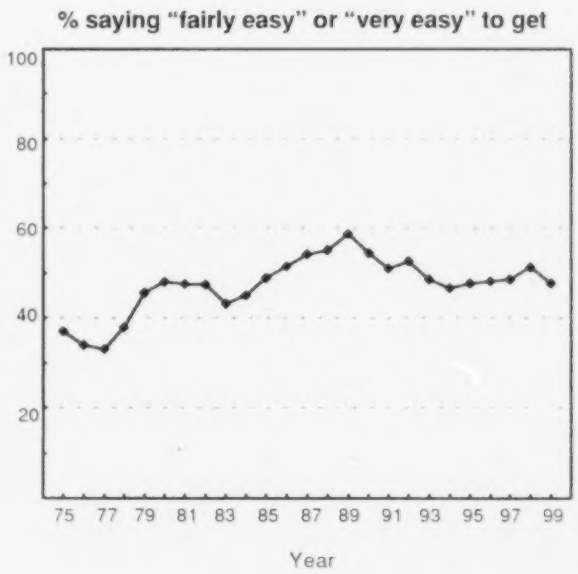
The proportion of 12th graders saying that it would be "fairly easy" or "very easy" for them to get cocaine if they wanted some was 33% in 1977, rose to 48% by 1980, held fairly level through 1985, increased to 59% by 1989 (in a period of rapidly *declining* use), and then fell back to about 48% by 1993. Since then, perceived availability has remained steady. Note that the patterns of change do not map all that well onto the patterns of change in actual use, suggesting that changes in overall availability may not have been a major determinant of use—particularly of the sharp decline in use in the late '80s. The advent of crack cocaine in the early '80s, however, provided a lower cost form of cocaine, thus reducing the prior social class differences in use.

Cocaine (including Crack): Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Crack Cocaine

Several indirect indicators in the study suggested that crack use grew rapidly in the period 1983-1986, starting before we had direct measures of crack use. In 1986 we asked a single usage question in one of the five questionnaire forms given to 12th graders: those who indicated any cocaine use in the prior 12 months were asked if they had used crack. The results from that question represent the first data point in the first panel on the facing page. After that, our usual set of three questions about use was asked about crack and was inserted into several questionnaire forms.

Trends in Use

After 1986 there was a precipitous drop in crack use among 12th graders, one which continued through 1991. After 1991, all three grades showed a slow and steady increase in crack use through 1998. Indeed, crack was one of the few drugs still increasing in use in 1998. In 1999, crack use finally showed a drop in 8th grade and a leveling in 10th. The rate of use attained in 12th grade in 1999 (2.7%), while being the highest level attained in the '90s, is still well below what was probably the peak level in 1986 (4.1%).

Perceived Risk

By the time we added questions about the perceived risk of using crack in 1987, it was already seen as one of the most dangerous of all the illicit drugs by 12th graders: 57% saw a great risk in even trying it. This compared to 54% for heroin, for example. (See the previous section on cocaine for a discussion of changes in perceived risk in 1986.) However, perceived risk for crack still rose steadily through 1990, reaching 64% of 12th graders who said they thought there was a great risk in taking crack once or twice. (Use was dropping during this interval.) After 1990 some falloff in perceived risk began, well before crack use began to increase in 1994. Between 1991 and about 1998 there was a considerable falloff in this belief in grades 8 and 10, as use rose quite steadily.

Disapproval

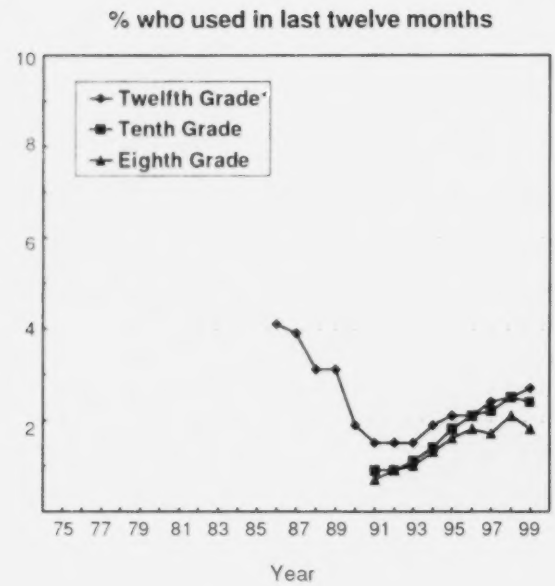
Disapproval of crack use was not included in the study until 1990, by which time it was at a very high level, with 92% of 12th graders saying that they disapproved of even trying it. Disapproval of crack use eased steadily in all three grades from 1991 through about 1997, before stabilizing in 1999.

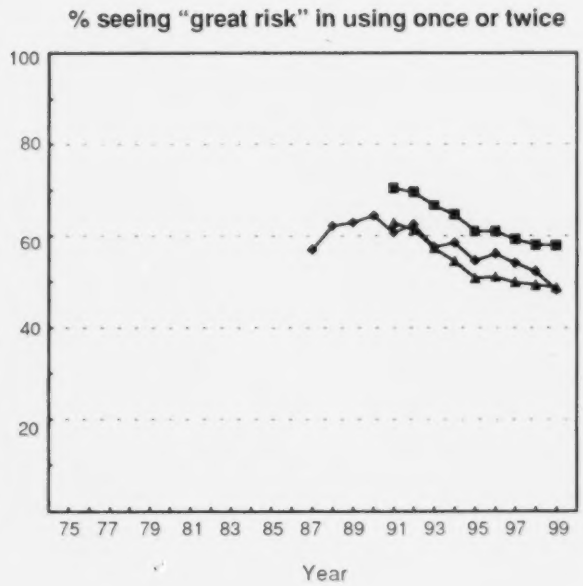
Availability

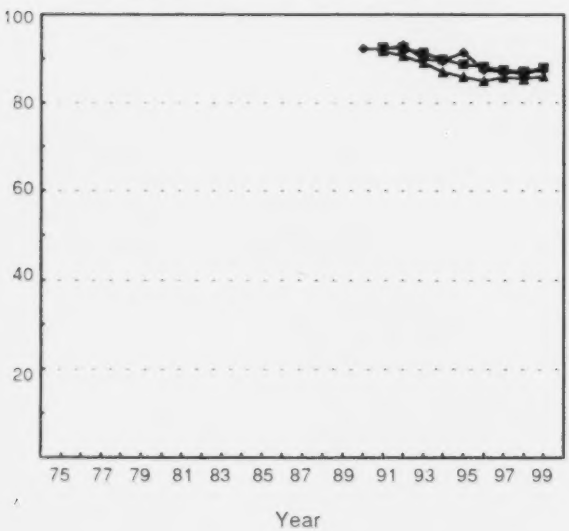
Crack availability remained relatively stable across the interval for which data are available, as the fourth panel on the facing page illustrates. In 1987 some 41% of 12th graders said it would be fairly easy for them to get crack if they wanted some, exactly the same proportion as observed in 1999. Eighth and tenth graders did report some modest increase in availability in the early '90s.

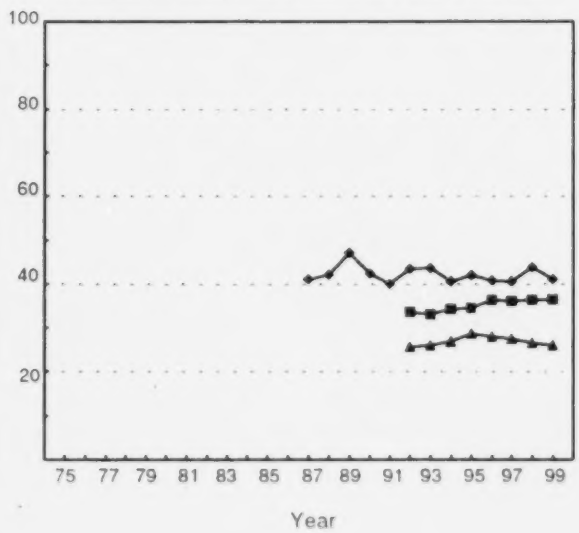
NOTE: The distinction between crack cocaine and other forms of cocaine (mostly powder) was not made until the middle of the life of the study. The charts on the facing page begin their trend lines when these distinctions were introduced for the different types of measures. Charts are not presented here for the "other forms of cocaine" measures, simply because the trend curves look extremely similar to those for crack. (All the statistics are contained in the tables presented later.) The absolute levels of use, risk, etc., are somewhat different, but the trends are very similar. Usage levels tend to be higher for cocaine powder compared to crack, the levels of perceived risk a bit lower, while disapproval and availability are quite close for the two different forms of cocaine.

Crack: Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Amphetamines

Amphetamines, a class of psychotherapeutic stimulants, have had a relatively high prevalence of use in the youth population for many years. The behavior reported here is supposed to exclude any use under medical supervision. Amphetamines are controlled substances—they are not supposed to be bought or sold without a doctor's prescription—but some are diverted from legitimate channels, and some are manufactured and/or imported illegally.

Trends in Use

The use of amphetamines rose in the last half of the '70s, reaching a peak in 1981—two years after marijuana use peaked. We believe that the usage rate reached in 1981 (annual prevalence of 26%) may have been an exaggeration of true amphetamine use, because "look-alikes" were in common use at that time. After 1981 a long and steady decline in use by 12th graders began, and did not end until 1992.

As with many other illicit drugs, amphetamines made a comeback in the '90s, with annual prevalence starting to rise by 1992 among 8th graders and by 1993 among the 10th and 12th graders. Use peaked in the lower two grades by 1996 and began to gradually decline thereafter. In 12th grade there is no evidence of a decline yet, though the annual prevalence rate for amphetamines has been unchanged for the last three years.

Perceived Risk

Only 12th graders are asked questions about the amount of risk they associate with amphetamine use or about their disapproval of that behavior. Overall, perceived risk has been less strongly correlated with usage levels (at the aggregate level) for this drug than for a number of others, although the expected inverse association pertained during much of the period 1975-1999. There was decrease in risk during the period 1975-1981 (when use was rising), some increase in risk in 1986-1991 (when use was falling), and some decline in perceived risk from 1991-1995 (in advance of use rising again). But in the interval 1981-1986, risk was quite stable even though use fell considerably. Of course, since those are the years of peak cocaine use, it is quite possible that some of the decline in amphetamine use in the '80s was not due to a change in attitudes about that drug, but rather due to competition from another stimulant—cocaine.

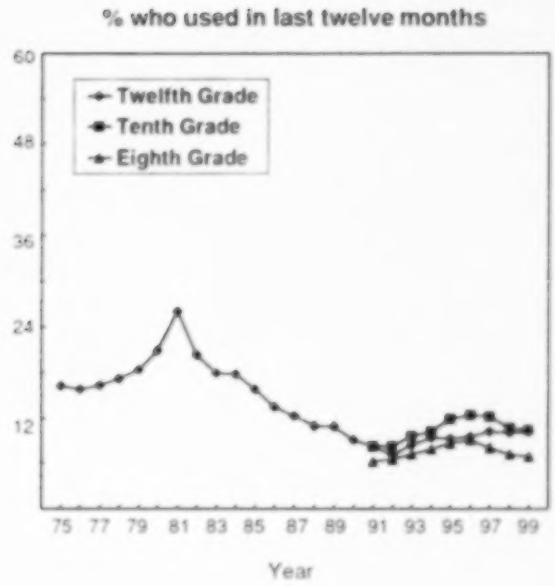
Disapproval

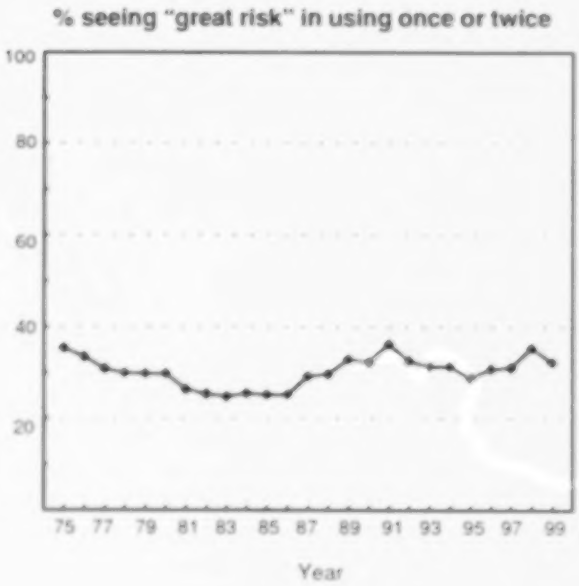
Relatively high proportions of 12th graders have disapproved of even trying amphetamines throughout the life of the study (between 70% and 87%). Disapproval did not change in the late '70s, despite the increase in use, though there seemed to be a one-year drop in 1981, specifically. From 1981-1992 disapproval rose gradually from 71% to 87% as use steadily declined. Disapproval then fell back about 6 or 7 percentage points in the next couple of years before stabilizing.

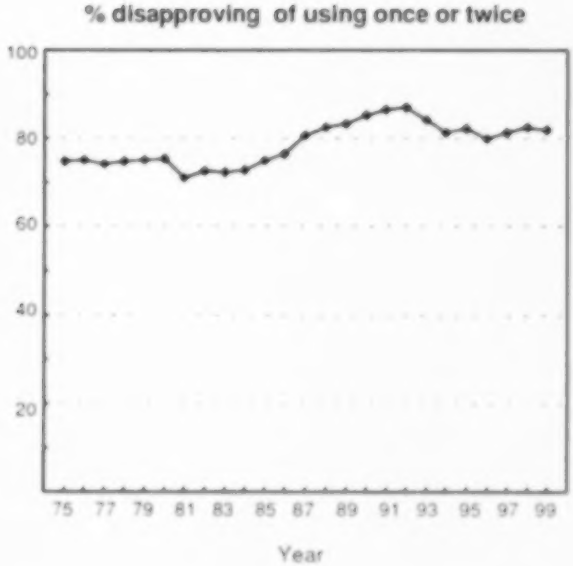
Availability

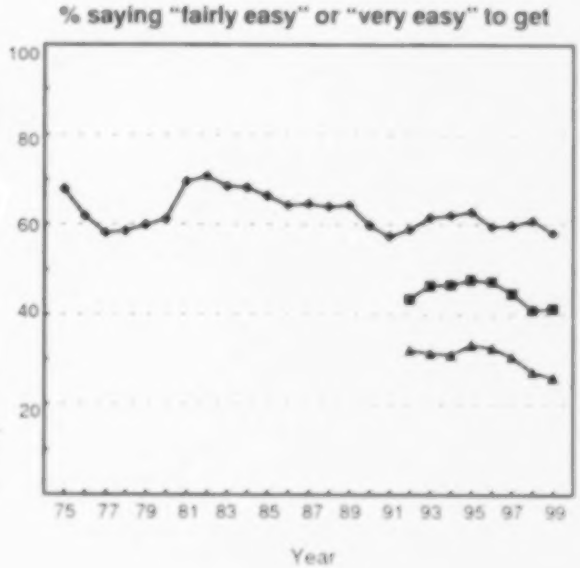
When the study started in 1975, amphetamines had a high level of reported availability. The level fell by about 10 percentage points by 1977, drifted up a bit through 1980, jumped sharply in 1981, and then began a long, gradual decline through 1991. There was a modest increase in availability at all three grade levels in the early '90s, followed by some decline later in the '90s.

Amphetamines: Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Methamphetamine and Ice

One subclass of amphetamines is called methamphetamine. This subclass (at one time called "speed") has been around for a long time and gave rise to the phrase "speed kills" in the '70s. Probably because of the reputation it got at that time as a particularly dangerous drug, it was not very popular for a long time. As a result, we did not even include a full set of questions about its use in the study's questionnaires. One form of methamphetamine that made a comeback in the '80s was crystal methamphetamine or "ice." It comes in crystalized form, as the name implies, and the chunks can be heated and the fumes inhaled, much like crack cocaine.

Trends in Use

For most of the life of the study the only question about methamphetamine use has been contained in a single 12th grade questionnaire form. Respondents who indicated using *any* type of amphetamines in the prior 12 months were asked in a sequel question to check on a pre-specified list which types they had used during that period. "Methamphetamine" was one type on the list, and data exist on its use since 1976. In 1976, annual prevalence was 1.9%; it then rose to 3.7% by 1981 (the peak year), before declining for a long period of time to 0.4% by 1992. It then rose again in the '90s, reaching 1.3% by 1998, before declining to 0.9% in 1999. In other words, it followed a cross-time trajectory very similar to that for amphetamines as a whole.

That questionnaire form also had "crystal meth" added in 1989 as another answer category that could be checked. It showed a level rate of use from 1989-1993 (at around 1.1%) followed by a period of increase to 2.5% by 1998 and then a decline to 1.8% in 1999.

In 1990, in the 12th grade questionnaires only, we introduced our usual set of three questions, and 1.3% of 12th graders indicated any crystal methamphetamine use in the prior year, a figure which climbed to 3.0% in 1998, followed by a decline to 1.9% in 1999. (Note that these prevalence rates are quite close to those derived from the other question procedures, just described.)

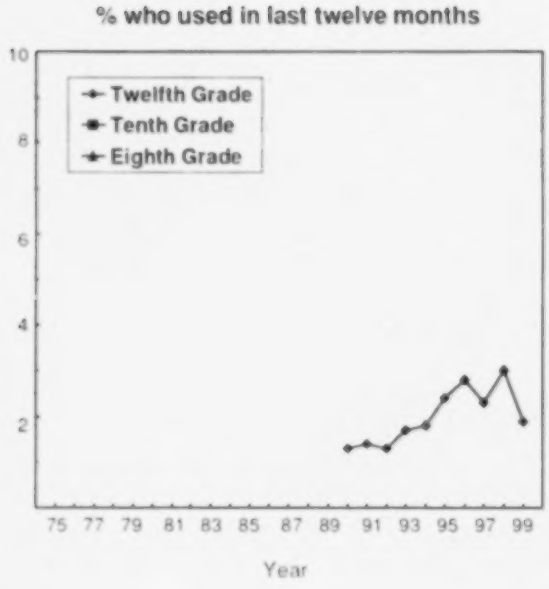
Responding to the growing concern about methamphetamine use in general—not just crystal methamphetamine use—we added a full set of three questions about the use of any methamphetamine to the 1999 questionnaires for all three grade levels. These questions yielded a somewhat higher annual prevalence for 12th graders in 1999 (4.7%), compared to the sum of the crystal meth and methamphetamine answers in the other question format, which totals 2.7%. It would appear, then, that the long-term method we had been using for tracking methamphetamine use probably yielded an understatement of the *absolute prevalence* level, perhaps because some proportion of methamphetamine users did not correctly categorize themselves initially as amphetamine users. We think it unlikely that the *shape* of the trend curve was distorted, however.

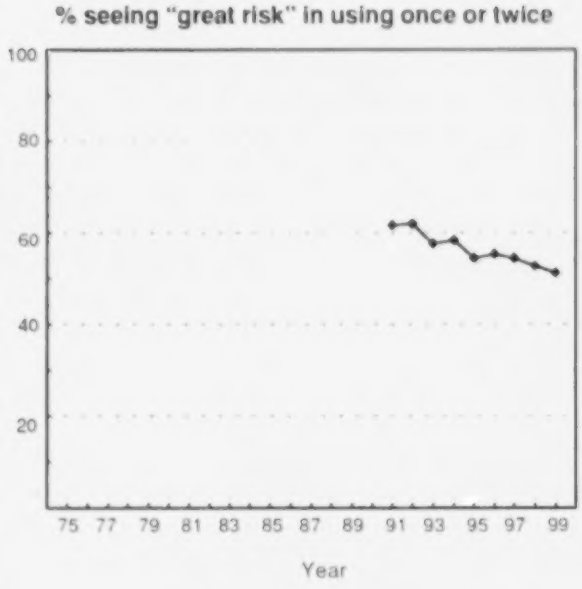
The new 1999 questions show fairly high levels of methamphetamine use: lifetime prevalence rates of 4.5%, 7.3%, and 8.2% for 8th, 10th, and 12th grades, respectively; annual prevalence rates of 3.2%, 4.6%, and 4.7%; and 30-day prevalence rates of 1.1%, 1.8%, and 1.7%.

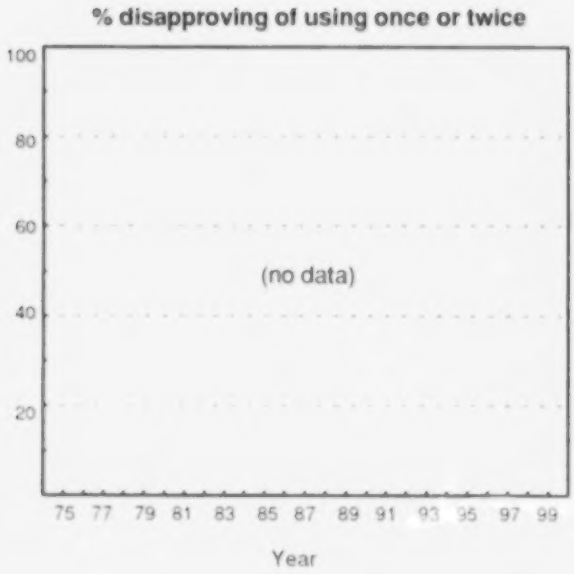
Other Measures

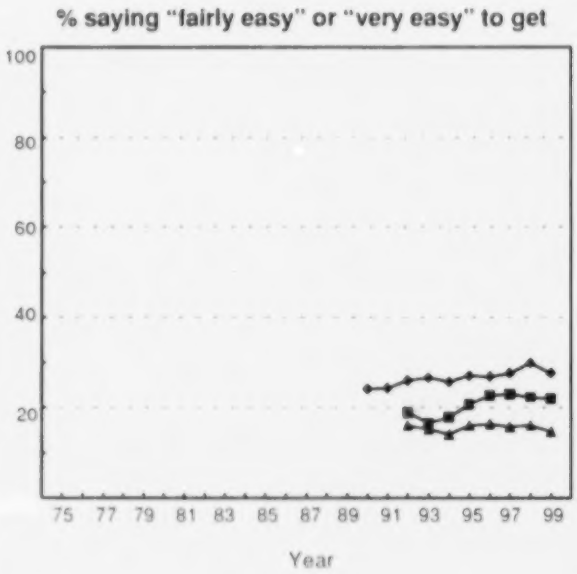
No questions have yet been added to the study on perceived risk, disapproval, or availability with regard to overall methamphetamine use. Data on two of these variables for crystal methamphetamine, specifically, may be found on the facing page.

Ice: Trends in Annual Use, Risk, and Availability
Eighth, Tenth, and Twelfth Graders









Heroin

Heroin, an opiate derivative, had been used for many decades primarily by injection into a vein. That was due in considerable part to the fact that the purity of the drug sold on the street to users was quite low, making the ingestion of heroin by other means less practical. However, in the 1990s the purity of available heroin reached very high levels, making other modes of administration (like snorting and smoking) practical alternatives to injection. Therefore, in 1995, we introduced questions that asked separately about using heroin with and without a needle so that we might see to what extent use without injection helped to explain the upsurge in use then occurring. The usage statistics presented in the first facing panel are based on heroin use by any method.

Trends in Use

The annual prevalence of heroin use among 12th graders fell by about half between 1975 and 1979, from 1.0% to 0.5%. The rate then held amazingly steady for about 14 years. After about 1993, though, heroin use began to rise, and it rose substantially until 1996 (among 8th graders) or 1997 (among 10th and 12th graders). The prevalence rates roughly doubled at each grade level. Use then stabilized again and has not changed much since those peak years.

The questions about use with and without a needle were not introduced until the 1995 survey, so they did not encompass much of the period of increasing use. Responses to these questions showed that by then about equal proportions of all users at 8th grade were using each of the two methods of ingestion, and some—nearly a third of the users—were using both. At 10th grade a somewhat higher proportion of all users was taking heroin by injection, and at 12th grade a higher proportion still. Much of the remaining increase in overall heroin use beyond 1995 occurred in the proportions using it *without* injecting, which we strongly suspect was true in the immediately preceding period of increase as well. (The differences across grade levels in the proportions of users who inject would be consistent with this interpretation.)

Perceived Risk

Students have long seen heroin to be one of the most dangerous drugs, which no doubt helps to account both for their consistently high level of personal disapproval of use (see below) and their quite low absolute prevalence of use rates. There have been some changes in perceived risk levels over the years, nevertheless. Between 1975 and 1986, perceived risk gradually declined, even though use dropped and then stabilized in that interval. There was then an upward shift in 1987 (the same year that perceived risk for cocaine jumped dramatically) to a new level, where it held for four years. In 1992 risk dropped to a lower plateau again, a year or two before use started to rise. Perceived risk then rose again in the latter half of the '90s as use leveled off. Based on the short interval for which we have such data from 8th and 10th graders, it may be seen that perceived risk rose among them between 1995 and 1997, foretelling an end to the increase in use.

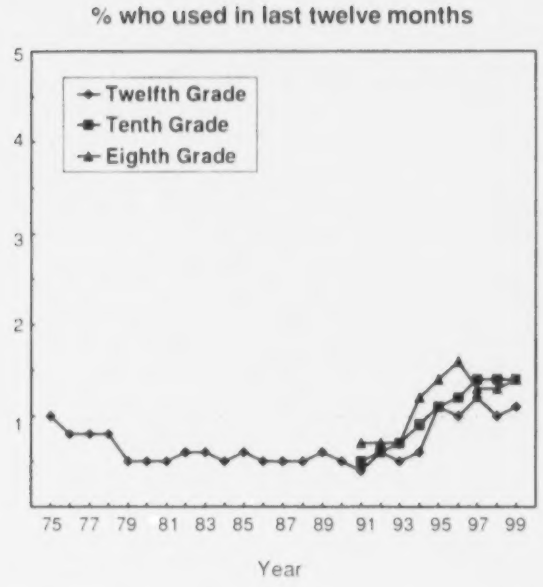
Disapproval

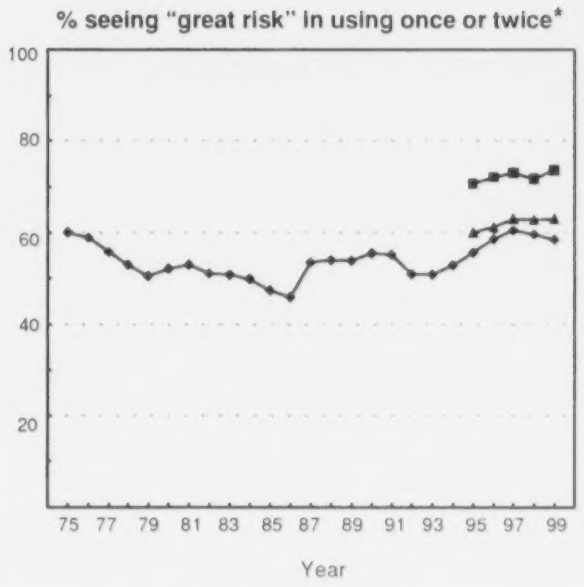
There has been very little fluctuation in the very high disapproval levels for heroin use over the years, though what change there was in the last half of the '90s was consistent with the concurrent changes in perceived risk and use.

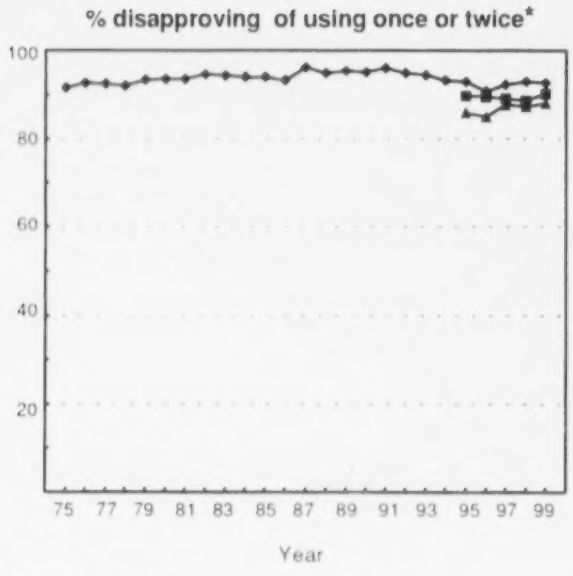
Availability

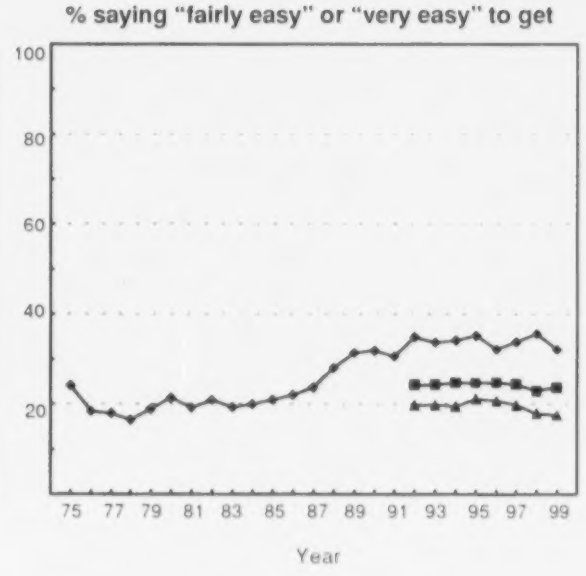
The proportion of 12th grade students saying they could get heroin fairly easily, if they wanted some, remained around 20% through the mid-'80s; it then increased considerably from 1986-1992, before stabilizing at about 35%. At the lower grade levels, reported availability has been less, but also has held fairly steady since 1992.

Heroin: Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









*Prior to 1995, the question asked about heroin use in general. Since 1995, the question has asked about heroin use without a needle

Tranquilizers

Tranquilizers constitute another class of psychotherapeutic drugs, like amphetamines, which are legally sold only by prescription. They are central nervous depressants and for the most part are comprised of benzodiazepines (minor tranquilizers, such as Valium). Respondents are told to exclude any medically prescribed use.

Trends in Use

During the late '70s and all of the '80s, tranquilizers fell steadily out of popularity, with use declining by three-quarters among 12th graders between 1977 and 1992. Their use made a bit of a comeback during the '90s, along with many other drugs, and more than doubling among 12th graders by 1999, to 5.8% annual prevalence. (This rate compares to 10.8% back in 1977, the peak year.) Use peaked among 8th graders in 1996 and has dropped a bit since then.

Perceived Risk

Data have not been collected on this variable due to questionnaire space limitations.

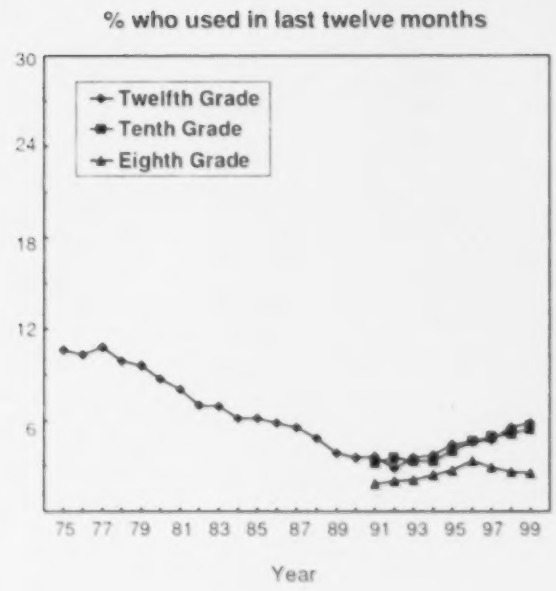
Disapproval

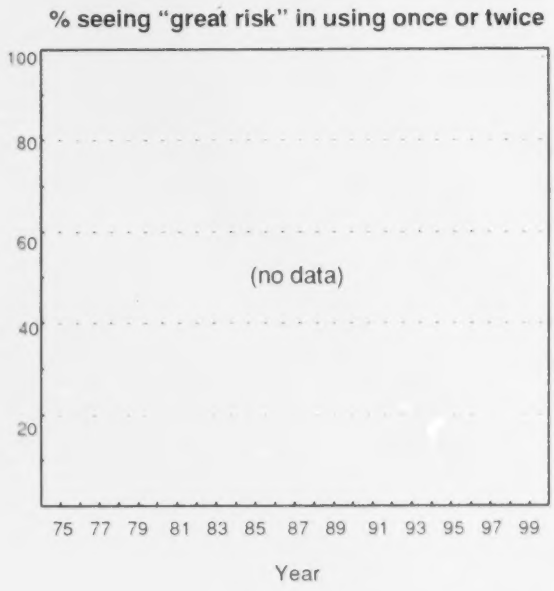
Data have not been collected on this variable, either.

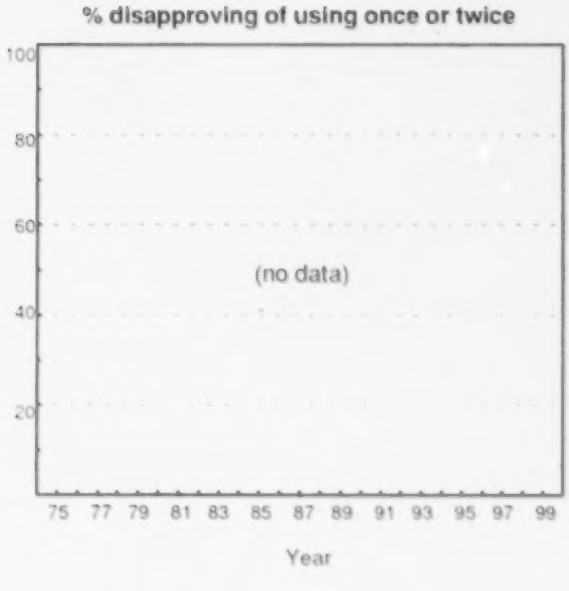
Availability

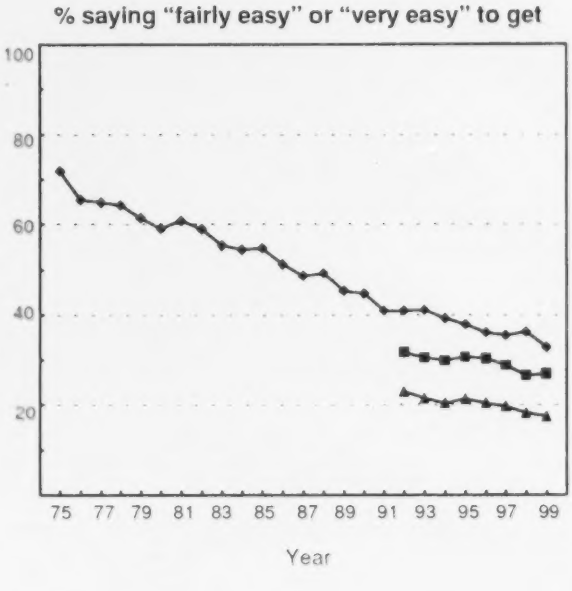
As the number of 12th graders reporting illegal tranquilizer use dropped dramatically during the '70s and '80s, so did the proportion saying they would be fairly easy to get. Whether use or perceived availability is the cause of the other is unclear. Perceived availability fell from 72% in 1975 to 33% in 1999. Most of that decline occurred before the '90s, though there was some further drop in the '90s at all three grade levels, despite the fact that use rose some.

Tranquilizers: Trends in Annual Use and Availability
Eighth, Tenth, and Twelfth Graders









Barbiturates

Like tranquilizers, barbiturate sedatives are psychotherapeutic drugs. They are central nervous system depressants, the sale of which is prescription controlled. They are used to assist sleep and relieve anxiety. Respondents are instructed to exclude from their answers any use that occurred under medical supervision. Usage data are reported only for 12th graders, because we believe that students in the lower grades tend to over-report use, perhaps including their use of nonprescription sleep aids or other over-the-counter drugs.

Trends in Use

Like tranquilizers, the use of barbiturates by 12th graders fell in popularity rather steadily from the mid-'70s through the early '90s. From 1975-1992, use fell by three-fourths, from 10.7% annual prevalence to 2.8%. Barbiturates showed some resurgence through 1999, though, reaching 5.8%.

Another class of sedatives, methaqualone, has been included in the study from the beginning. Statistics on trends in the use of that drug may be found in the accompanying tables. In 1975 methaqualone use was about half the level of barbiturate use. Its use also declined steadily from 1981, when annual prevalence was 7.6%, through 1993, when annual prevalence reached the negligible level of 0.2%. Use increased some for a couple of years, reaching 1.1% in 1996, where it remained in 1999.

Perceived Risk

Trying barbiturates was never seen by most students as being very dangerous, and it is clear from the second facing panel that perceived risk cannot do much to explain the trends in use which occurred through 1986, at least. Perceived risk actually declined a bit between 1975 and 1986—an interval in which use also was declining. But then perceived risk shifted up some through 1991, consistent with the fact that use was still falling. It then dropped back some through 1999, as use was increasing.

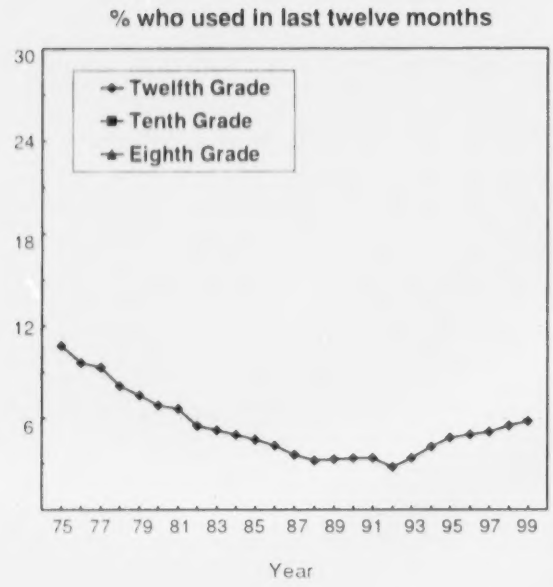
Disapproval

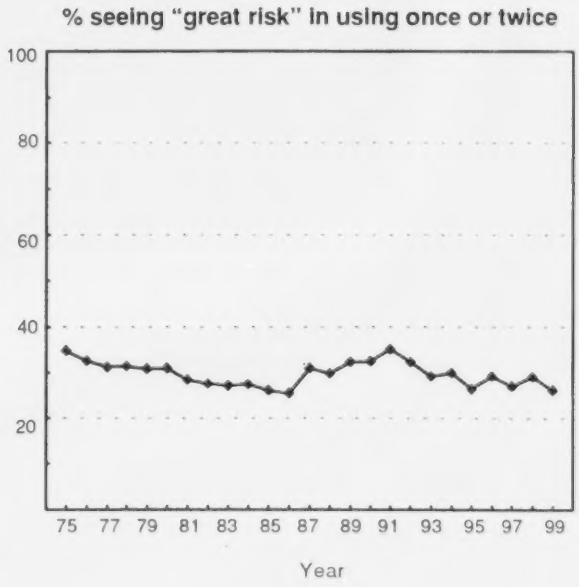
Like many of the illicit drugs other than marijuana, barbiturates have received the disapproval of the great majority of all high school graduating classes over the past 25 years, though there have been some changes in level. Those changes have been consistent with the changes in actual use observed. Disapproval of using a barbiturate once or twice rose from 78% in 1975 to a high of 91% in 1990, where it held for two years. Then disapproval eroded a bit to 87% by 1999, during a period of increasing use.

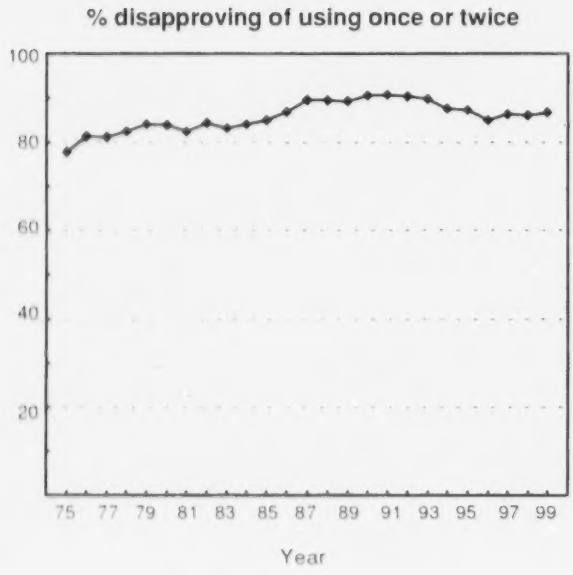
Availability

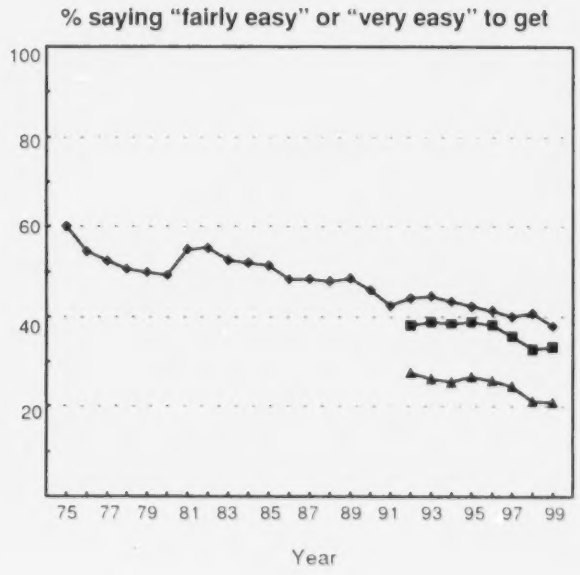
As the fourth facing panel shows, the availability of amphetamines has generally been declining during most of the life of the study, except for one shift up which occurred in 1981.

Barbiturates: Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









"Club Drugs"—Rohypnol and Ecstasy

There are a number of so-called "club drugs," so labeled because they are popular at night clubs and all-night dance parties called "raves." At present, this category includes LSD, MDMA ("ecstasy"), methamphetamine, Rohypnol, ketamine, and GHB. We will deal here only with ecstasy and Rohypnol, since LSD and methamphetamine already have been discussed and we do not yet have any information on ketamine or GHB (though they have been added to the year 2000 questionnaire).

Rohypnol and GHB also have been labeled "date rape drugs." Both can induce amnesia of events that occurred while under the influence of the drug; therefore, both have been used in connection with rapes or seductions by dates or acquaintances. In such cases, where the drug may be slipped surreptitiously into the drink of a victim, it is questionable whether the victim is even aware of having taken that particular drug.

Trends in Rohypnol Use

Questions about the use of Rohypnol were added to the survey in 1996. They revealed low levels of use that the respondent was able to report—around 1% in all three grade levels. At 8th grade, use began falling immediately after 1996 and by 1999 had fallen by half. In the upper two grades, use first rose for a year or two before beginning to fall back to its original level by 1999. All three grades showed some decline in 1999, though only the decline in 8th grade reached statistical significance.

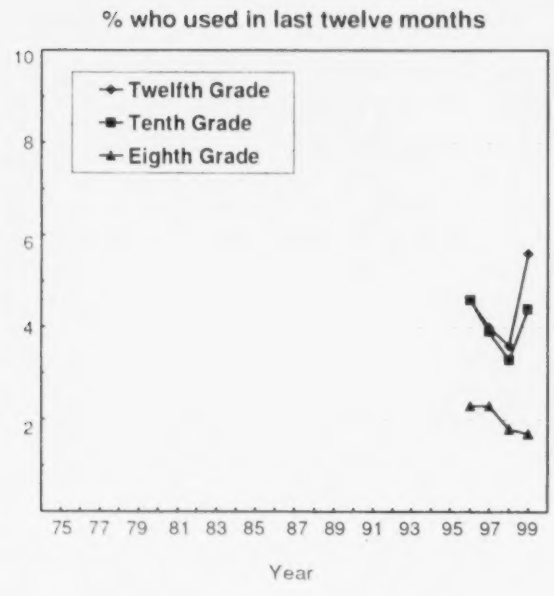
Limitations on questionnaire space precluded asking about perceived risk, disapproval, or availability.

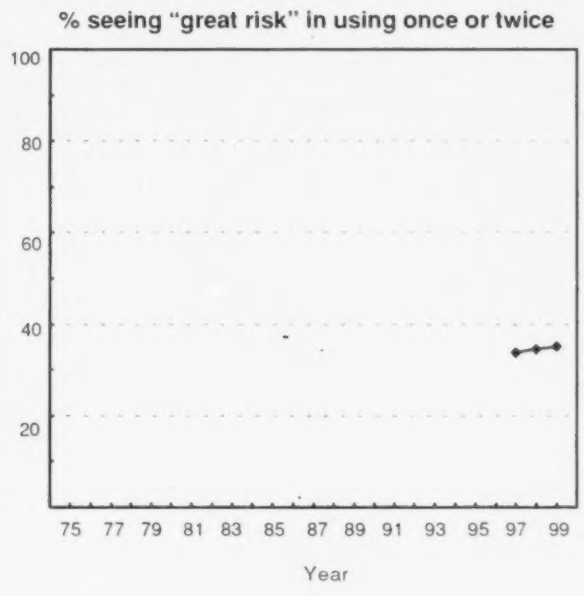
Trends in MDMA (Ecstasy) Use

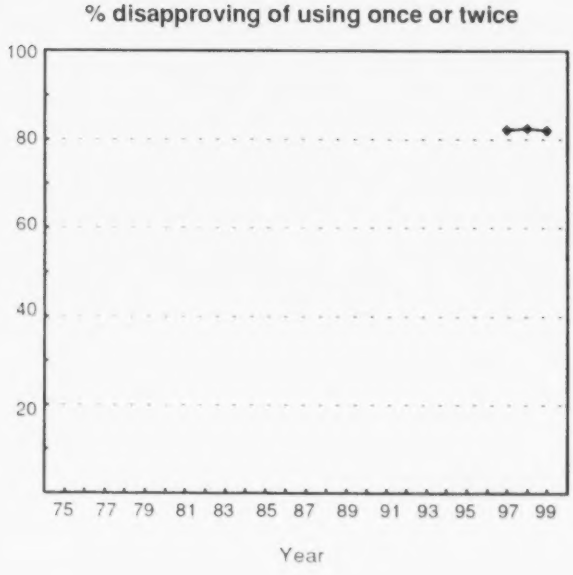
Ecstasy is actually a form of methamphetamine but is used more for its hallucinogenic properties. Questions about the use of MDMA, or ecstasy, were added to the surveys of secondary school students in 1996. (We have had questions on this drug since 1991 in the questionnaires answered by college students and young adults, but had been cautious about introducing a drug with such an alluring name to secondary school students before they may have otherwise heard about it. The results from the older respondents showed ecstasy use beginning to rise above trace levels in 1995, and continuing to rise at least through 1998.) Annual prevalence in 10th and 12th grades in 1996 was 4.6%—actually considerably higher than among college students and young adults at that point. Ecstasy use fell in both grades over the next two years, but in 1999, use rose sharply in both grades, bringing annual prevalence up to 4.4% among 10th graders and 5.6% among 12th graders.

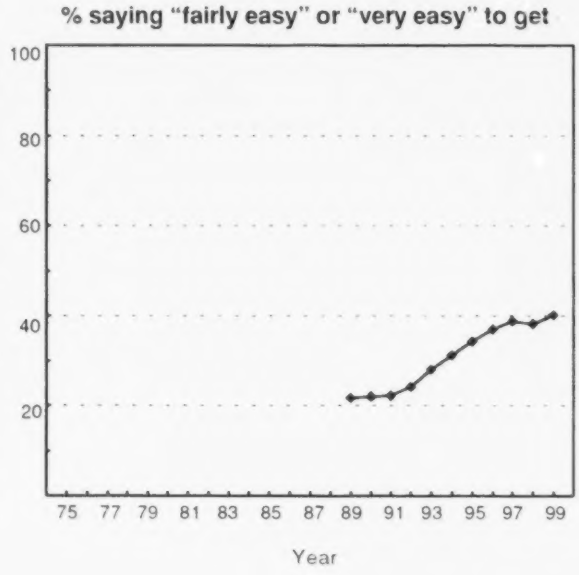
We do not have a ready explanation for why this turnaround occurred. The charts on the facing page show no change in perceived risk or disapproval since 1997, but they do show roughly a doubling from 1991 to 1997 in the proportion of 12th graders who thought it would be "fairly easy" or "very easy" to get ecstasy if they wanted some. The increase in ecstasy use in 1999 occurred primarily in the Northeast and in large cities.

MDMA (Ecstasy): Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Alcohol

Alcoholic beverages—which include beer, wine, wine coolers, and hard liquor—have been among the most widely used substances by American young people for a very long time. In 1999 the proportions of 8th, 10th, and 12th graders who admitted drinking an alcoholic beverage in the 30-day period prior to the survey were 24%, 40%, and 51%, respectively. There are quite a number of usage measures of relevance for alcohol, all of which are contained in the tables at the end of this report. Here we will focus on the pattern of alcohol consumption, which probably is of the greatest public health concern—episodic heavy drinking, what we call "binge drinking" for short. It is measured in this study by the reported number of occasions, during the prior two-week interval, that the respondent had five or more drinks in a row. We present the prevalence of such binge drinking behavior in the first panel.

Trends in Use

Judging by the data from 12th graders, binge drinking reached its peak at about the time that overall illicit drug use did, in 1979. It held steady for a couple of years and then declined substantially from 41% in 1983 to a low of 28% in 1992 (also the low point of *any illicit drug* use). This was an important improvement—a drop of almost one-third in binge drinking. Although illicit drug use rose considerably in the '90s in proportional terms, binge drinking rose only by a small fraction—about four percentage points among the 12th graders—between 1992 and 1998. At 8th grade there was some upward drift between 1991 (12.9%) and 1996 (15.6%), as was true at 10th grade between 1992 (21.1%) and 1997 (25.1%). Use has been level, or even down slightly, over the past year or so in all three grades.

One point to note in these findings is that there is no evidence of any "displacement effect" in the aggregate between alcohol and marijuana—a hypothesis frequently heard. The two drugs have moved much more in parallel over the years than in opposite directions.

Perceived Risk

While for most of the study the majority of 12th graders have not viewed binge drinking on weekends as carrying a great risk (see panel two), there was in fact a fair-sized increase in this measure between 1982, when it was 36%, and 1992, when it reached 49%. There then followed a modest decline to 43% by 1997, before it stabilized. These changes track fairly well the changes in actual binge drinking. We believe that the public service advertising campaigns in the '80s against drunk driving, in general, as well as those that urged use of designated drivers when drinking, may have contributed to the increase in perceived risk of binge drinking. As we have published elsewhere, drunk driving by 12th graders declined during that period by an even larger proportion than did binge drinking.

Disapproval

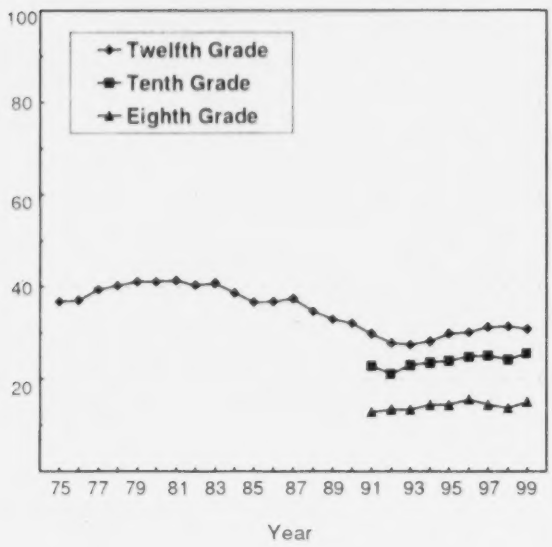
Disapproval of weekend binge drinking moved pretty much in parallel to perceived risk, suggesting that increasingly such drinking (and very likely the drunk-driving behavior often associated with it) became unacceptable in the peer group. Note that the rates of disapproval and perceived risk for binge drinking are higher in the lower grades than in 12th grade. Both variables showed some erosion at all grade levels in the early '90s.

Availability

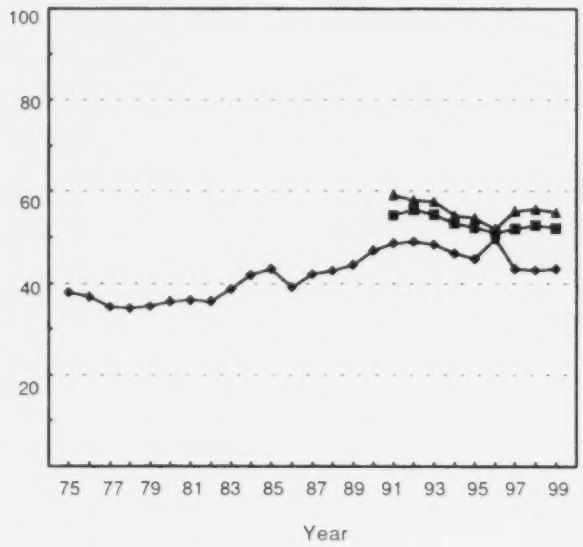
Perceived availability of alcohol, which has been asked only of 8th and 10th graders, has been very high and fairly steady in the '90s, although there may have been a slight decline since about 1997.

Alcohol: Trends in Binge Drinking, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders

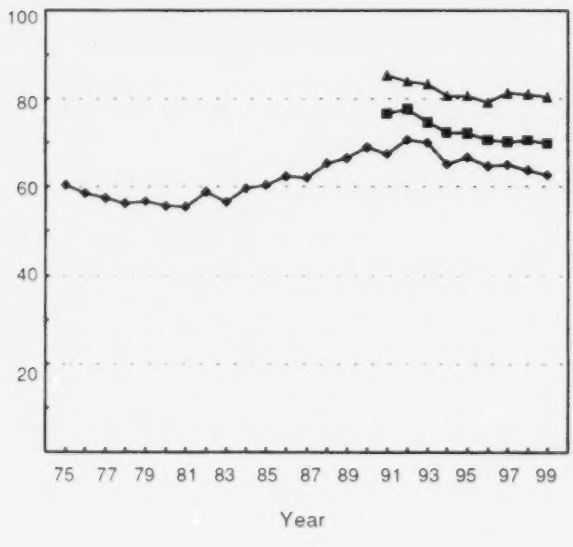
% who had 5+ drinks in a row
in previous two weeks



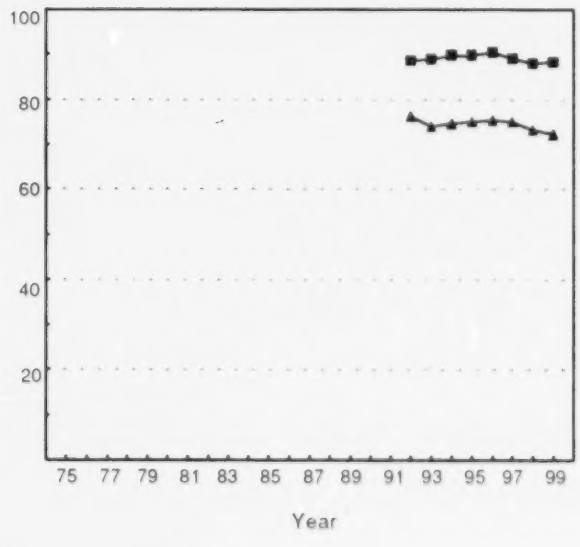
% seeing "great risk" in having 5+ drinks in a row
once or twice each weekend



% disapproving of having 5+ drinks in a row
once or twice each weekend



% saying "fairly easy" or "very easy"
to get alcohol



Cigarettes

Cigarette smoking has been called the greatest preventable cause of disease and mortality in the United States. At current rates, this statement surely remains true for these newer cohorts of young people. (Note: Data are presented in the tables on all measures of cigarette smoking *and* on the use of smokeless tobacco.)

Trends in Use

We know that differences in smoking rates between different birth cohorts (or, in this case, high school class cohorts) tend to stay with those cohorts throughout the life cycle. This means that it is critical to prevent smoking very early. It also means that the trends observed at one grade level may not correspond to the trends observed in another in a given historical period. Among 12th graders, 30-day prevalence of smoking reached a peak in 1976, at 39%. (The peak likely occurred considerably earlier for lower grade levels, as these same class cohorts passed through them in previous years.) There was about a one-quarter drop in 30-day prevalence between 1976 and 1981, when the rate reached 29%, a level at which it remained until 1992 (28%).

In the '90s, smoking began to rise sharply, starting in 1992 (and quite possibly earlier) among 8th and 10th graders, and in 1993 among 12th graders. Over four to five years to follow, smoking rates increased by about one-half in the lower two grades and by almost one-third in grade 12—very substantial increases. Smoking peaked in 1996 for 8th and 10th graders and in 1997 for 12th graders, before showing some decline in all three grades, which continued in the lower grades in 1999.

Perceived Risk

Among 12th graders, the proportion seeing great risk in pack-a-day smoking rose before and during some of the time that use first declined. It leveled in 1980 (before use leveled), declined a bit in 1982, but then started to rise again gradually for five years (though use remained stable). Perceived risk fell some in the early '90s at all three grade levels as use increased; but after 1995 perceived risk began to climb in all three grades (coincident with use starting to decline in grades 8 and 10, but a year before it started to decline in 12th grade). Note the considerable disparity of the levels of perceived risk among grade levels. For some years, only around 50% of 8th graders saw great risk in pack-a-day smoking.

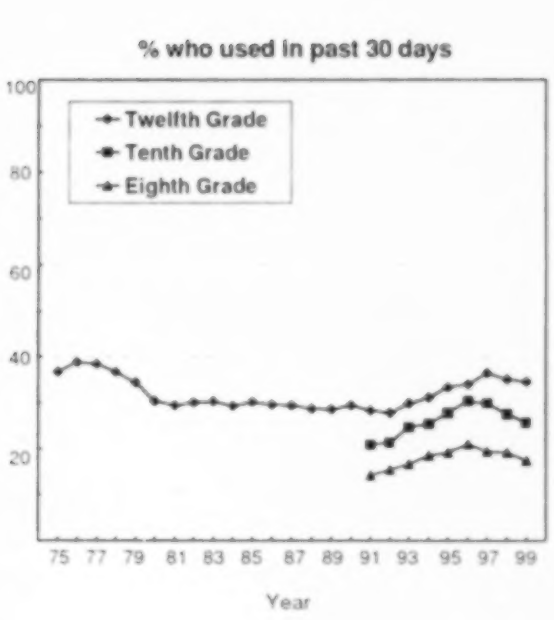
Disapproval

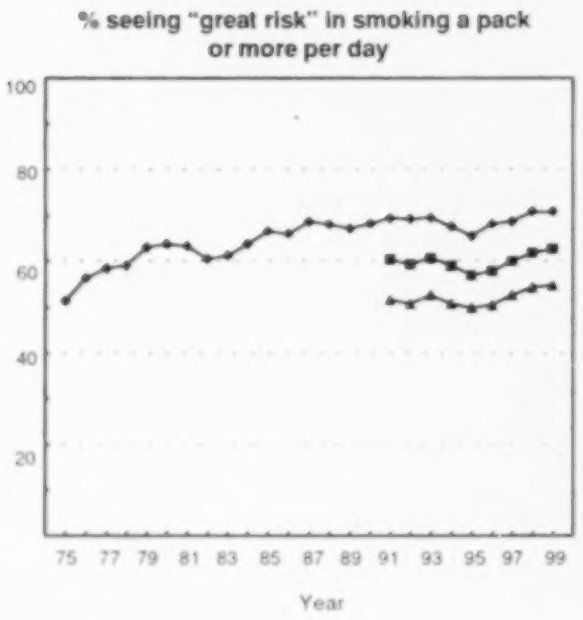
Disapproval rates for smoking have been fairly high throughout the study and, unlike perceived risk, are higher in the lower grade levels. Among 12th graders there was a gradual increase in disapproval of smoking from 1976-1986, a slight erosion over the following five years, then a steeper erosion during the early to mid-'90s. In the two lower grades a decline in disapproval occurred between 1991 and 1996, the period of sharply increasing use. This was followed by a steady increase in disapproval through 1999 in grades 8 and 10 (as use declined).

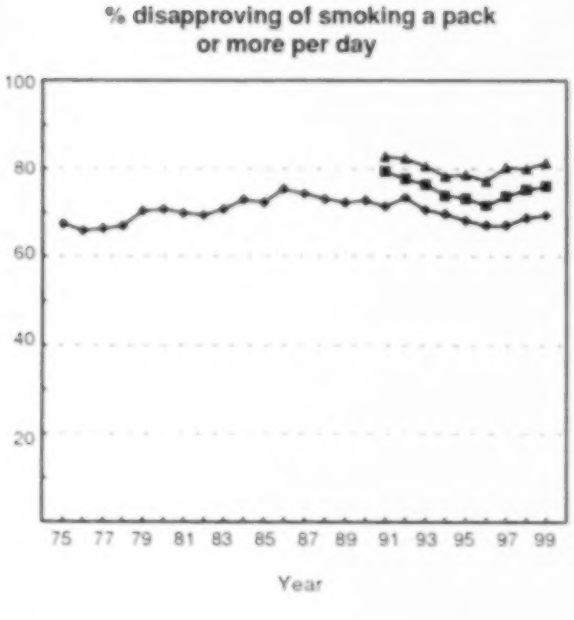
Availability

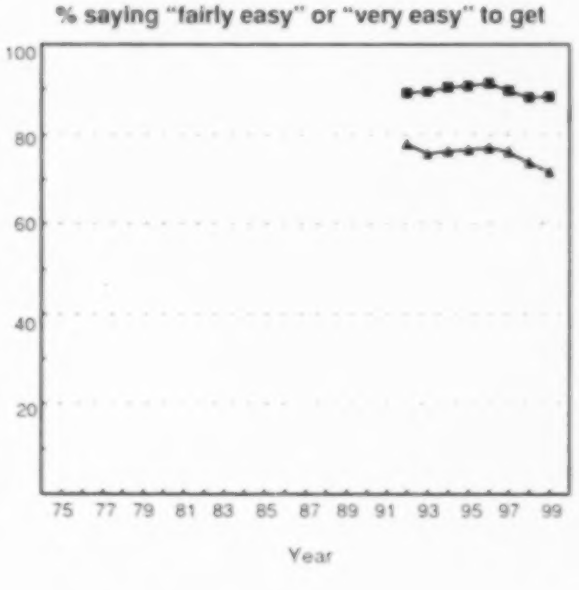
Availability of cigarettes is reported as very high by 8th and 10th graders. (We do not ask the question of 12th graders, for whom we assume accessibility is nearly universal.) Availability to the younger students has declined some in the last three years.

Cigarettes: Trends in 30-Day Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Steroids

Unlike all of the other drugs discussed in this volume, anabolic steroids are not usually taken for their psychoactive effects, but rather for their physical effects on the body, in particular for their effects on muscle and strength development. They are similar to the other drugs studied here, though, in that they are controlled substances for which there is an illicit market and which can have adverse consequences for the user. Questions about their use were added to the study beginning in 1989. Respondents are asked: "Steroids, or anabolic steroids, are sometimes prescribed by doctors to promote healing from certain types of injuries. Some athletes, and others, have used them to try to increase muscle development. On how many occasions (if any) have you taken steroids on your own—that is, without a doctor telling you to take them...?"

Trends in Use

Steroids are used predominately by males; therefore, data based on all respondents can mask higher rates and larger fluctuations that occur among males. For example, in 1999 the annual prevalence rates were two to five times as high among males as among females. Boys' annual prevalence rates were 2.5%, 2.8%, and 3.1% in grades 8, 10, and 12, compared with 0.9%, 0.7%, and 0.6% for girls. Between 1991 and 1997 the *overall* annual prevalence rate was quite stable in 8th grade, ranging between 0.9% and 1.2%; and in 10th grade it was similarly stable, ranging between 1.0% and 1.2%. (See the first panel on the facing page.) In 1999, however, use jumped from 1.2% to 1.7% in 8th and 10th grades. Almost all of that increase occurred among boys (increasing from 1.6% to 2.5% in 8th grade and from 1.9% to 2.8% in 10th). In other words, the rates among boys increased by about 50% in a single year. In 12th grade there was a different trend story. With data going back to 1989, we can see that steroid use first fell from 1.9% overall in 1989 to 1.1% in 1992—the low point. From 1992-1999 there was a more gradual increase in use, reaching 1.8% by 1999.

Perceived Risk

Perceived risk and disapproval were only asked of 8th and 10th graders for a few years, before the space was allocated to other questions. All grades seemed to have a peak in perceived risk around 1993. The longer-term data from 12th graders, however, show a distinct drop in 1999. This 6 percentage point drop was quite unusual and highly significant, suggesting that some historical event in that year changed beliefs about the dangers of steroids. (It seems likely that there was at least as large a drop in the lower grades, as well, where the sharp upturn in use occurred that year.)

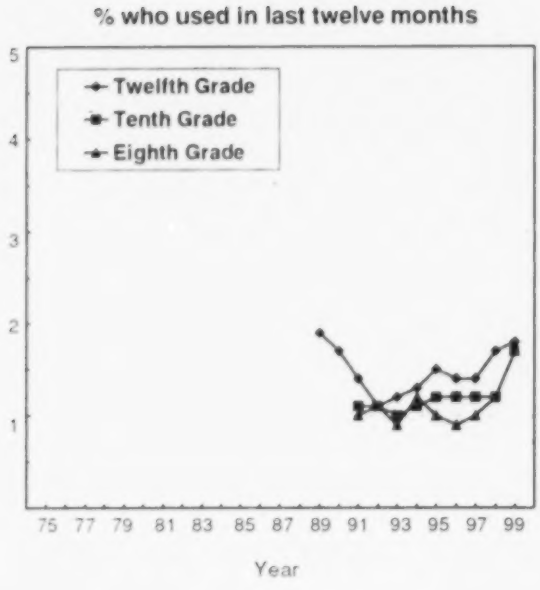
Disapproval

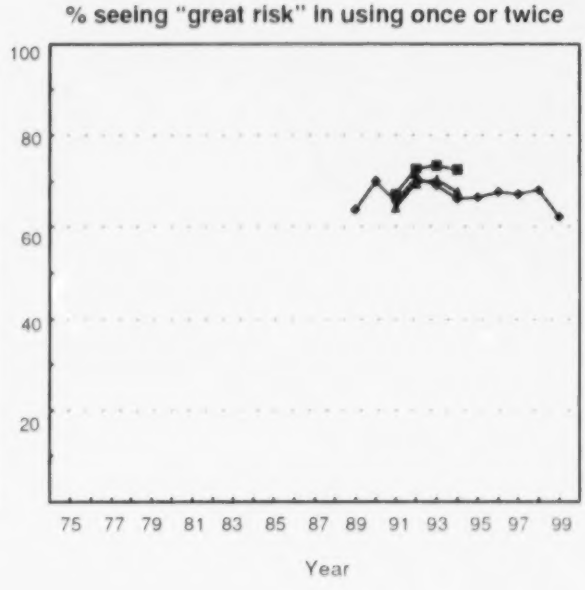
Disapproval of steroid use has been quite high for some years. (Along with the high levels of perceived risk, disapproval rates no doubt help to explain the low *absolute* prevalence rates.) There has been only slight falloff in disapproval so far.

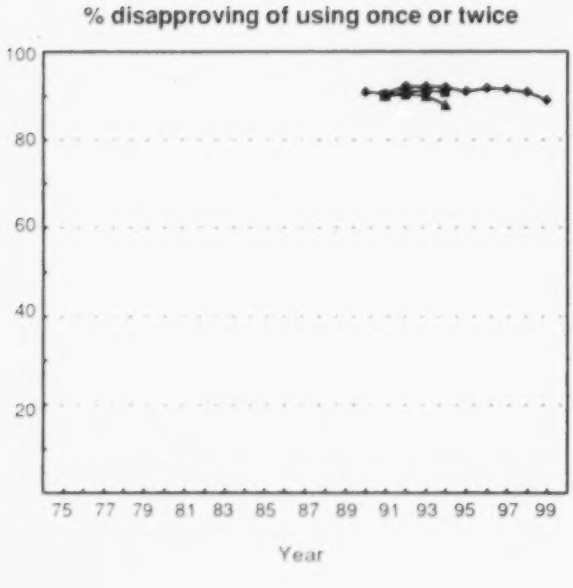
Availability

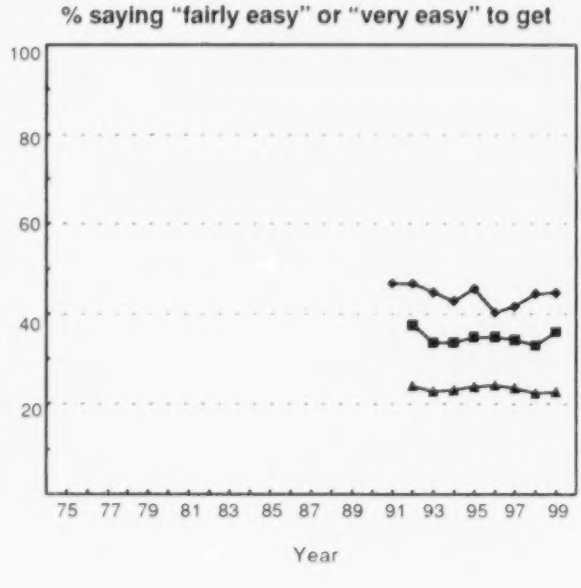
Perceived availability is quite high for steroids and considerably higher at the upper grades than in the lower ones. However, it should be noted that some over-the-counter substances, like androstenedione, are legally available to all age groups.

Steroids: Trends in Annual Use, Risk, Disapproval, and Availability
Eighth, Tenth, and Twelfth Graders









Subgroup Differences

Space does not permit a full discussion or the documentation of the many subgroup differences on the host of drugs covered in this report. However, the much longer versions of Volume I in this same series—both the one published last year and the one forthcoming in 2000—contain an extensive appendix with tables giving the subgroup prevalence levels and trends for nearly all of the classes of drugs discussed here. Chapters 4 and 5 in those volumes also present a more in-depth discussion and interpretation of those differences. Comparisons are made by gender, college plans, region of the country, community size, socioeconomic level (as measured by the educational level of the parents), and race/ethnicity.

Gender. Generally, we have found males to have somewhat higher rates of illicit drug use than females (particularly of frequent use), higher rates of heavy drinking, and roughly equivalent rates of cigarette smoking (though the two genders have reversed order twice during the life of the study). These gender differences appear to emerge as students grow older, since many differences are smaller or non-existent at the lower grade levels. Use of the various substances tends to move pretty much in parallel across time for both genders, although the absolute differences tend to be largest in the higher prevalence periods.

College Plans. Those students who are not college bound (a decreasing proportion of the total youth population) are considerably more likely to be at risk for using illicit drugs, for drinking heavily, and particularly for cigarette smoking than are the college bound. Again, these differences are largest in periods of highest prevalence. In the lower grades, the college bound showed a greater increase in cigarette smoking in the early to mid-'90s than did their non-college-bound peers.

Region of the Country. The differences associated with region of the country are sufficiently varied and complex that we cannot do justice to them here. In general, though, the Northeast and the West have tended to have the highest proportions of students using any illicit drug, and the South the lowest proportion (though these rankings do not apply to many of the specific drugs). In particular, the cocaine epidemic of the early '80s was much more pronounced in the West and the Northeast than in the other two regions, though the differences decreased as the overall epidemic subsided. While the South and the West once had lower rates of drinking among students than the other two regions had, those differences have narrowed in recent years. Cigarette smoking rates have consistently been lowest in the West. The upsurge of ecstasy use in 1999 occurred primarily in the Northeast.

Population Density. There have not been very large or consistent differences in overall illicit drug use associated with population density over the life of the study, which helps to demonstrate just how ubiquitous the illicit drug phenomenon has been in this country. In the last few years, the use of a number of drugs has declined more in the urban areas than in the non-urban ones, leaving the non-urban areas with higher rates of use. The recent upsurge in ecstasy use does seem to be concentrated in urban areas, at least so far. Crack and heroin use, however, are not concentrated in urban areas, meaning that no parents should assume their youngsters are immune to these threats simply because they do not live in a city.

Socioeconomic Level. For many drugs the differences in use by socioeconomic class are very small, and the trends have been highly parallel. One very interesting difference occurred for cocaine, which was *positively* associated with socioeconomic status in the early '80s. That association had nearly disappeared by 1986,

however, with the advent of crack, which offered cocaine at a lower price. Cigarette smoking showed a similar narrowing of class differences, but this time it was a large *negative* association with social class that diminished considerably, between roughly 1985 and 1993. Rates of binge drinking are roughly equivalent across the classes and have been for some time among 12th graders.

Race/Ethnicity. Among the most dramatic and interesting subgroup differences are those found among the three largest racial/ethnic groups—Whites, African Americans, and Hispanics. Contrary to popular assumption, at all three grade levels African American youngsters have substantially lower rates of use of a number of licit and illicit drugs than do Whites. These include any illicit drug use, most of the specific illicit drugs, alcohol, and cigarettes. In fact, African Americans' use of cigarettes is dramatically lower than for Whites, and this is a difference that emerged largely during the life of the study (i.e., since 1975).

Hispanics have rates of use that tend to fall between the other two groups in 12th grade—usually closer to the rates for Whites than for Blacks. (Hispanics do have the highest reported rates of use for some drugs in 12th grade—crack and ecstasy—and their level of heroin use is equivalent to that of Whites.) But in 8th grade they tend to come out highest of the three racial/ethnic groups on nearly all classes of drugs, including alcohol (amphetamines being the major exception). One possible explanation for this change in ranking between 8th and 12th grade may lie in the fact that Hispanic youngsters have considerably higher school dropout rates. Thus, more of the "drug-prone" segment of that ethnic group may leave school before 12th grade than in the other two racial/ethnic groups. Another explanation could be that Hispanics are more precocious in their initiation of these sorts of behaviors.

TABLE 1

Trends in Lifetime Prevalence of Use of Various Drugs for Eighth, Tenth, and Twelfth Graders

(Entries are percentages)

	Lifetime									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
Any Illicit Drug[a]										
8th Grade	18.7	20.6	22.5	25.7	28.5	31.2	29.4	29.0	28.3	-0.7
10th Grade	30.6	29.8	32.8	37.4	40.9	45.4	47.3	44.9	46.2	+1.3
12th Grade	44.1	40.7	42.9	45.6	48.4	50.8	54.3	54.1	54.7	+0.6
Any Illicit Drug Other Than Marijuana[a]										
8th Grade	14.3	15.6	16.8	17.5	18.8	19.2	17.7	16.9	16.3	-0.6
10th Grade	19.1	19.2	20.9	21.7	24.3	25.5	25.0	23.6	24.0	+0.4
12th Grade	26.9	25.1	26.7	27.6	28.1	28.5	30.0	29.4	29.4	0.0
Any Illicit Drug Including Inhalants[a,b]										
8th Grade	28.5	29.6	32.3	35.1	38.1	39.4	38.1	37.8	37.2	-0.6
10th Grade	36.1	36.2	38.7	42.7	45.9	49.8	50.9	49.3	49.9	+0.6
12th Grade	47.6	44.4	46.6	49.1	51.5	53.5	56.3	56.1	56.3	+0.2
Marijuana/Hashish										
8th Grade	10.2	11.2	12.6	16.7	19.9	23.1	22.6	22.2	22.0	-0.2
10th Grade	23.4	21.4	24.4	30.4	34.1	39.8	42.3	39.6	40.9	+1.3
12th Grade	36.7	32.6	35.3	38.2	41.7	44.9	49.6	49.1	49.7	+0.6
Inhalants[b,c]										
8th Grade	17.6	17.4	19.4	19.9	21.6	21.2	21.0	20.5	19.7	-0.8
10th Grade	15.7	16.6	17.5	18.0	19.0	19.3	18.3	18.3	17.0	-1.3
12th Grade	17.6	16.6	17.4	17.7	17.4	16.6	16.1	15.2	15.4	+0.2
Nitrites[d]										
8th Grade	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—
12th Grade	1.6	1.5	1.4	1.7	1.5	1.8	2.0	2.7	1.7	-1.0
Hallucinogens[e]										
8th Grade	3.2	3.8	3.9	4.3	5.2	5.9	5.4	4.9	4.8	-0.1
10th Grade	6.1	6.4	6.8	8.1	9.3	10.5	10.5	9.8	9.7	-0.1
12th Grade	9.6	9.2	10.9	11.4	12.7	14.0	15.1	14.1	13.7	-0.4
LSD										
8th Grade	2.7	3.2	3.5	3.7	4.4	5.1	4.7	4.1	4.1	0.0
10th Grade	5.6	5.8	6.2	7.2	8.4	9.4	9.5	8.5	8.5	0.0
12th Grade	8.8	8.6	10.3	10.5	11.7	12.6	13.6	12.6	12.2	-0.4
Hallucinogens Other Than LSD										
8th Grade	1.4	1.7	1.7	2.2	2.5	3.0	2.6	2.5	2.4	-0.1
10th Grade	2.2	2.5	2.8	3.8	3.9	4.7	4.8	5.0	4.7	-0.3
12th Grade	3.7	3.3	3.9	4.9	5.4	6.8	7.5	7.1	6.7	-0.4

(Table continued on next page)

TABLE 1 (cont.)

Trends in Lifetime Prevalence of Use of Various Drugs for Eighth, Tenth, and Twelfth Graders

	Lifetime									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
PCP[d]										
8th Grade	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—
12th Grade	2.9	2.4	2.9	2.8	2.7	4.0	3.9	3.9	3.4	-0.5
MDMA (Ecstasy)[d]										
8th Grade	—	—	—	—	—	3.4	3.2	2.7	2.7	0.0
10th Grade	—	—	—	—	—	5.6	5.7	5.1	6.0	+0.9
12th Grade	—	—	—	—	—	6.1	6.9	5.8	8.0	+2.3s
Cocaine										
8th Grade	2.3	2.9	2.9	3.6	4.2	4.5	4.4	4.6	4.7	+0.1
10th Grade	4.1	3.3	3.6	4.3	5.0	6.5	7.1	7.2	7.7	+0.5
12th Grade	7.8	6.1	6.1	5.9	6.0	7.1	8.7	9.3	9.8	+0.5
Crack										
8th Grade	1.3	1.6	1.7	2.4	2.7	2.9	2.7	3.2	3.1	-0.1
10th Grade	1.7	1.5	1.8	2.1	2.8	3.3	3.6	3.9	4.0	+0.1
12th Grade	3.1	2.6	2.6	3.0	3.0	3.3	3.9	4.4	4.6	+0.2
Other Cocaine[e]										
8th Grade	2.0	2.4	2.4	3.0	3.4	3.8	3.5	3.7	3.8	+0.1
10th Grade	3.8	3.0	3.3	3.8	4.4	5.5	6.1	6.4	6.8	+0.4
12th Grade	7.0	5.3	5.4	5.2	5.1	6.4	8.2	8.4	8.8	+0.4
Heroin[f]										
8th Grade	1.2	1.4	1.4	2.0	2.3	2.4	2.1	2.3	2.3	0.0
10th Grade	1.2	1.2	1.3	1.5	1.7	2.1	2.1	2.3	2.3	0.0
12th Grade	0.9	1.2	1.1	1.2	1.6	1.8	2.1	2.0	2.0	0.0
Other Narcotics[g]										
8th Grade	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—
12th Grade	6.6	6.1	6.4	6.6	7.2	8.2	9.7	9.8	10.2	+0.4
Amphetamines[g]										
8th Grade	10.5	10.8	11.8	12.3	13.1	13.5	12.3	11.3	10.7	-0.6
10th Grade	13.2	13.1	14.9	15.1	17.4	17.7	17.0	16.0	15.7	-0.3
12th Grade	15.4	13.9	15.1	15.7	15.3	15.3	16.5	16.4	16.3	-0.1
Methamphetamine[h,i]										
8th Grade	—	—	—	—	—	—	—	—	4.5	—
10th Grade	—	—	—	—	—	—	—	—	7.3	—
12th Grade	—	—	—	—	—	—	—	—	8.2	—

(Table continued on next page)

TABLE 1 (cont.)

Trends in Lifetime Prevalence of Use of Various Drugs for Eighth, Tenth, and Twelfth Graders

	Lifetime									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
Ice[1]										
8th Grade	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—
12th Grade	3.3	2.9	3.1	3.4	3.9	4.4	4.4	5.3	4.8	-0.5
Barbiturates[8]										
8th Grade	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—
12th Grade	6.2	5.5	6.3	7.0	7.4	7.6	8.1	8.7	8.9	+0.2
Tranquilizers[8]										
8th Grade	3.8	4.1	4.4	4.6	4.5	5.3	4.8	4.6	4.4	-0.2
10th Grade	5.8	5.9	5.7	5.4	6.0	7.1	7.3	7.8	7.9	+0.1
12th Grade	7.2	6.0	6.4	6.6	7.1	7.2	7.8	8.5	9.3	+0.8
Rohypnol[4,5]										
8th Grade	—	—	—	—	—	1.5	1.1	1.4	1.3	-0.1
10th Grade	—	—	—	—	—	1.5	1.7	2.0	1.8	-0.2
12th Grade	—	—	—	—	—	1.2	1.8	3.0	2.0	-1.0
Alcohol[8]										
Any use										
8th Grade	70.1	69.3	67.1	—	—	—	—	—	—	—
			55.7	55.8	54.5	55.3	53.8	52.5	52.1	-0.4
10th Grade	83.8	82.3	80.8	—	—	—	—	—	—	—
			71.6	71.1	70.5	71.8	72.0	69.8	70.6	+0.8
12th Grade	88.0	87.5	87.0	—	—	—	—	—	—	—
			80.0	80.4	80.7	79.2	81.7	81.4	80.0	-1.4
Been Drunk[1]										
8th Grade	26.7	26.8	26.4	25.9	25.3	26.8	25.2	24.8	24.8	0.0
10th Grade	50.0	47.7	47.9	47.2	46.9	48.5	49.4	46.7	48.9	+2.2
12th Grade	65.4	63.4	62.5	62.9	63.2	61.8	64.2	62.4	62.3	-0.1
Cigarettes										
Any use										
8th Grade	44.0	45.2	45.3	46.1	46.4	49.2	47.3	45.7	44.1	-1.6
10th Grade	55.1	53.5	56.3	56.9	57.6	61.2	60.2	57.7	57.6	-0.1
12th Grade	63.1	61.8	61.9	62.0	64.2	63.5	65.4	65.3	64.6	-0.7
Smokeless Tobacco[4]										
8th Grade	22.2	20.7	18.7	19.9	20.0	20.4	16.8	15.0	14.4	-0.6
10th Grade	28.2	26.6	28.1	29.2	27.6	27.4	26.3	22.7	20.4	-2.3
12th Grade	—	32.4	31.0	30.7	30.9	29.8	25.3	26.2	23.4	-2.8
Steroids[1]										
8th Grade	1.9	1.7	1.6	2.0	2.0	1.8	1.8	2.3	2.7	+0.4
10th Grade	1.8	1.7	1.7	1.8	2.0	1.8	2.0	2.0	2.7	+0.7ss
12th Grade	2.1	2.1	2.0	2.4	2.3	1.9	2.4	2.7	2.9	+0.2

(FOOTNOTES are presented after Table 3)

TABLE 2

Trends in Annual and 30-Day Prevalence of Use of Various Drugs for Eighth, Tenth, and Twelfth Graders

	Annual										30-Day									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
Any Illicit Drug[a]																				
8th Grade	11.3	12.9	15.1	18.5	21.4	23.6	22.1	21.0	20.5	-0.5	5.7	6.8	8.4	10.9	12.4	14.6	12.9	12.1	12.2	+0.1
10th Grade	21.4	20.4	24.7	30.0	33.3	37.5	38.5	35.0	35.9	+0.9	11.6	11.0	14.0	18.5	20.2	23.2	23.0	21.5	22.1	+0.6
12th Grade	29.4	27.1	31.0	35.8	39.0	40.2	42.4	41.4	42.1	+0.7	16.4	14.4	18.3	21.9	23.8	24.6	26.2	25.6	25.9	+0.3
Any Illicit Drug Other Than Marijuana[a]																				
8th Grade	8.4	9.3	10.4	11.3	12.6	13.1	11.8	11.0	10.5	-0.5	3.8	4.7	5.3	5.6	6.5	6.9	6.0	5.5	5.5	0.0
10th Grade	12.2	12.3	13.9	15.2	17.5	18.4	18.2	16.6	16.7	+0.1	5.5	5.7	6.5	7.1	8.9	8.9	8.8	8.6	8.6	0.0
12th Grade	16.2	14.9	17.1	18.0	19.4	19.8	20.7	20.2	20.7	+0.5	7.1	6.3	7.9	8.8	10.0	9.5	10.7	10.7	10.4	-0.3
Any Illicit Drug Including Inhalants[a,b]																				
8th Grade	16.7	18.2	21.1	24.2	27.1	28.7	27.2	26.2	25.3	-0.9	8.8	10.0	12.0	14.3	16.1	17.5	16.0	14.9	15.1	+0.2
10th Grade	23.9	23.5	27.4	32.5	35.6	39.6	40.3	37.1	37.7	+0.6	13.1	12.6	15.5	20.0	21.6	24.5	24.1	22.5	23.1	+0.6
12th Grade	31.2	28.8	32.5	37.6	40.2	41.9	43.3	42.4	42.8	+0.4	17.8	15.5	19.3	23.0	24.8	25.5	26.9	26.6	26.4	-0.2
Marijuana/Hashish																				
8th Grade	6.2	7.2	9.2	13.0	15.8	18.3	17.7	16.9	16.5	-0.4	3.2	3.7	5.1	7.8	9.1	11.3	10.2	9.7	9.7	0.0
10th Grade	16.5	15.2	19.2	25.2	28.7	33.6	34.8	31.1	32.1	+1.0	8.7	8.1	10.9	15.8	17.2	20.4	20.5	18.7	19.4	+0.7
12th Grade	23.9	21.9	26.0	30.7	34.7	35.8	38.5	37.5	37.8	+0.3	13.8	11.9	15.5	19.0	21.2	21.9	23.7	22.8	23.1	+0.3
Inhalants[b,c]																				
8th Grade	9.0	9.5	11.0	11.7	12.8	12.2	11.8	11.1	10.3	-0.8	4.4	4.7	5.4	5.6	6.1	5.8	5.6	4.8	5.0	+0.2
10th Grade	7.1	7.5	8.4	9.1	9.6	9.5	8.7	8.0	7.2	-0.8	2.7	2.7	3.3	3.6	3.5	3.3	3.0	2.9	2.6	-0.3
12th Grade	6.6	6.2	7.0	7.7	8.0	7.6	6.7	6.2	5.6	-0.6	2.4	2.3	2.5	2.7	3.2	2.5	2.5	2.3	2.0	-0.3
Nitrites[d]																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12th Grade	0.9	0.5	0.9	1.1	1.1	1.6	1.2	1.4	0.9	-0.5	0.4	0.3	0.6	0.4	0.4	0.7	0.7	1.0	0.4	-0.6s
Hallucinogens[e]																				
8th Grade	1.9	2.5	2.6	2.7	3.6	4.1	3.7	3.4	2.9	-0.5	0.8	1.1	1.2	1.3	1.7	1.9	1.8	1.4	1.3	-0.1
10th Grade	4.0	4.3	4.7	5.8	7.2	7.8	7.6	6.9	6.9	0.0	1.6	1.8	1.9	2.4	3.3	2.8	3.3	3.2	2.9	-0.3
12th Grade	5.8	5.9	7.4	7.6	9.3	10.1	9.8	9.0	9.4	+0.4	2.2	2.1	2.7	3.1	4.4	3.5	3.9	3.8	3.5	-0.3
LSD																				
8th Grade	1.7	2.1	2.3	2.4	3.2	3.5	3.2	2.8	2.4	-0.4	0.6	0.9	1.0	1.1	1.4	1.5	1.5	1.1	1.1	0.0
10th Grade	3.7	4.0	4.2	5.2	6.5	6.9	6.7	5.9	6.0	+0.1	1.5	1.6	1.6	2.0	3.0	2.4	2.8	2.7	2.3	-0.4
12th Grade	5.2	5.6	6.8	6.9	8.4	8.8	8.4	7.6	8.1	+0.5	1.9	2.0	2.4	2.6	4.0	2.5	3.1	3.2	2.7	-0.5
Hallucinogens Other Than LSD																				
8th Grade	0.7	1.1	1.0	1.3	1.7	2.0	1.8	1.6	1.5	-0.1	0.3	0.4	0.5	0.7	0.8	0.9	0.7	0.7	0.6	-0.1
10th Grade	1.3	1.4	1.9	2.4	2.8	3.3	3.3	3.4	3.2	-0.2	0.4	0.5	0.7	1.0	1.0	1.0	1.2	1.4	1.2	-0.2
12th Grade	2.0	1.7	2.2	3.1	3.8	4.4	4.6	4.6	4.3	-0.3	0.7	0.5	0.8	1.2	1.3	1.6	1.7	1.6	1.6	0.0

(Table continued on next page)

TABLE 2 (cont.)

Trends in Annual and 30-Day Prevalence of Use of Various Drugs for Eighth, Tenth, and Twelfth Graders

	Annual										30-Day									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
PCP[d]																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12th Grade	1.4	1.4	1.4	1.6	1.8	2.6	2.3	2.1	1.8	-0.3	0.5	0.6	1.0	0.7	0.6	1.3	0.7	1.0	0.8	-0.2
MDMA (Ecstasy)[d]																				
8th Grade	—	—	—	—	—	2.3	2.3	1.8	1.7	-0.1	—	—	—	—	—	1.0	1.0	0.9	0.8	-0.1
10th Grade	—	—	—	—	—	4.6	3.9	3.3	4.4	+1.1s	—	—	—	—	—	1.8	1.3	1.3	1.8	+0.5
12th Grade	—	—	—	—	—	4.6	4.0	3.6	5.6	+2.0ss	—	—	—	—	—	2.0	1.6	1.5	2.5	+1.0s
Cocaine																				
8th Grade	1.1	1.5	1.7	2.1	2.6	3.0	2.8	3.1	2.7	-0.4	0.5	0.7	0.7	1.0	1.2	1.3	1.1	1.4	1.3	-0.1
10th Grade	2.2	1.9	2.1	2.8	3.5	4.2	4.7	4.7	4.9	+0.2	0.7	0.7	0.9	1.2	1.7	1.7	2.0	2.1	1.8	-0.3
12th Grade	3.5	3.1	3.3	3.6	4.0	4.9	5.5	5.7	6.2	+0.5	1.4	1.3	1.3	1.5	1.8	2.0	2.3	2.4	2.6	+0.2
Crack																				
8th Grade	0.7	0.9	1.0	1.3	1.6	1.8	1.7	2.1	1.8	-0.4s	0.3	0.5	0.4	0.7	0.7	0.8	0.7	0.9	0.8	-0.1
10th Grade	0.9	0.9	1.1	1.4	1.8	2.1	2.2	2.5	2.4	-0.1	0.3	0.4	0.5	0.6	0.9	0.8	0.9	1.1	0.8	-0.3s
12th Grade	1.5	1.5	1.5	1.9	2.1	2.1	2.4	2.5	2.7	+0.2	0.7	0.6	0.7	0.8	1.0	1.0	0.9	1.0	1.1	+0.1
Other Cocaine[e]																				
8th Grade	1.0	1.2	1.3	1.7	2.1	2.5	2.2	2.4	2.3	-0.1	0.5	0.5	0.6	0.9	1.0	1.0	0.8	1.0	1.1	+0.1
10th Grade	2.1	1.7	1.8	2.4	3.0	3.5	4.1	4.0	4.4	+0.4	0.6	0.6	0.7	1.0	1.4	1.3	1.6	1.8	1.6	-0.2
12th Grade	3.2	2.6	2.9	3.0	3.4	4.2	5.0	4.9	5.8	+0.9	1.2	1.0	1.2	1.3	1.3	1.6	2.0	2.0	2.5	+0.5
Heroin[f]																				
8th Grade	0.7	0.7	0.7	1.2	1.4	1.6	1.3	1.3	1.4	+0.1	0.3	0.4	0.4	0.6	0.6	0.7	0.6	0.6	0.6	0.0
10th Grade	0.5	0.6	0.7	0.9	1.1	1.2	1.4	1.4	1.4	0.0	0.2	0.2	0.3	0.4	0.6	0.5	0.6	0.7	0.7	0.0
12th Grade	0.4	0.6	0.5	0.6	1.1	1.0	1.2	1.0	1.1	+0.1	0.2	0.3	0.2	0.3	0.6	0.5	0.5	0.5	0.5	0.0
Other Narcotics[g]																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12th Grade	3.5	3.3	3.6	3.8	4.7	5.4	6.2	6.3	6.7	+0.4	1.1	1.2	1.3	1.5	1.8	2.0	2.3	2.4	2.6	+0.2
Amphetamines[g]																				
8th Grade	6.2	6.5	7.2	7.9	8.7	9.1	8.1	7.2	6.9	-0.3	2.6	3.3	3.6	3.6	4.2	4.6	3.8	3.3	3.4	+0.1
10th Grade	8.2	8.2	9.6	10.2	11.9	12.4	12.1	10.7	10.4	-0.3	3.3	3.6	4.3	4.5	5.3	5.5	5.1	5.1	5.0	-0.1
12th Grade	8.2	7.1	8.4	9.4	9.3	9.5	10.2	10.1	10.2	+0.1	3.2	2.8	3.7	4.0	4.0	4.1	4.8	4.6	4.5	-0.1
Methamphetamine[h,i]																				
8th Grade	—	—	—	—	—	—	—	—	3.2	—	—	—	—	—	—	—	—	—	1.1	—
10th Grade	—	—	—	—	—	—	—	—	4.6	—	—	—	—	—	—	—	—	—	1.8	—
12th Grade	—	—	—	—	—	—	—	—	4.7	—	—	—	—	—	—	—	—	—	1.7	—

(Table continued on next page)

TABLE 2 (cont.)

Trends in Annual and 30-Day Prevalence of Use of Various Drugs for Eighth, Tenth, and Twelfth Graders

	Annual										30-Day									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
Ice[2]																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12th Grade	1.4	1.3	1.7	1.8	2.4	2.8	2.3	3.0	1.9	-1.1ss	0.6	0.5	0.6	0.7	1.1	1.1	0.8	1.2	0.8	-0.4
Barbiturates[4]																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12th Grade	3.4	2.8	3.4	4.1	4.7	4.9	5.1	5.5	5.8	+0.3	1.4	1.1	1.3	1.7	2.2	2.1	2.1	2.6	2.6	0.0
Tranquilizers[4]																				
8th Grade	1.8	2.0	2.1	2.4	2.7	3.3	2.9	2.6	2.5	-0.1	0.8	0.8	0.9	1.1	1.2	1.5	1.2	1.2	1.1	-0.1
10th Grade	3.2	3.5	3.3	3.3	4.0	4.6	4.9	5.1	5.4	+0.3	1.2	1.5	1.1	1.5	1.7	1.7	2.2	2.2	2.2	0.0
12th Grade	3.6	2.8	3.5	3.7	4.4	4.6	4.7	5.5	5.8	+0.3	1.4	1.0	1.2	1.4	1.8	2.0	1.8	2.4	2.5	+0.1
Rohypnol[5]																				
8th Grade	—	—	—	—	—	1.0	0.8	0.8	0.5	-0.3s	—	—	—	—	—	0.5	0.3	0.4	0.3	-0.1
10th Grade	—	—	—	—	—	1.1	1.3	1.2	1.0	-0.2	—	—	—	—	—	0.5	0.5	0.4	0.5	+0.1
12th Grade	—	—	—	—	—	1.1	1.2	1.4	1.0	-0.4	—	—	—	—	—	0.5	0.3	0.3	0.3	0.0
Alcohol[6]																				
Any use																				
8th Grade	54.0	53.7	51.6	—	—	—	—	—	—	—	25.1	26.1	26.2	—	—	—	—	—	—	—
			45.4	46.8	45.3	46.5	45.5	43.7	43.5	-0.2			24.3	25.0	24.6	26.2	24.5	23.0	24.0	+1.0
10th Grade	72.3	70.2	69.3	—	—	—	—	—	—	—	42.8	39.9	41.5	—	—	—	—	—	—	—
			63.4	63.9	63.5	65.0	65.2	62.7	63.7	+1.0			38.2	39.2	38.8	40.4	40.1	38.8	40.0	+1.2
12th Grade	77.7	76.8	76.0	—	—	—	—	—	—	—	54.0	51.3	51.0	—	—	—	—	—	—	—
			72.7	73.0	73.7	72.5	74.8	74.3	73.8	-0.5			48.6	50.1	51.3	50.8	52.7	52.0	51.0	-1.0
Been Drunk[7]																				
8th Grade	17.5	18.3	18.2	18.2	18.4	19.8	18.4	17.9	18.5	+0.6	7.6	7.5	7.8	8.7	8.3	9.6	8.2	8.4	9.4	+1.0
10th Grade	40.1	37.0	37.8	38.0	38.5	40.1	40.7	38.3	40.9	+2.6s	20.5	18.1	19.8	20.3	20.8	21.3	22.4	21.1	22.5	+1.4
12th Grade	52.7	50.3	49.6	51.7	52.5	51.9	53.2	52.0	53.2	+1.2	31.6	29.9	28.9	30.8	33.2	31.3	34.2	32.9	32.9	0.0
Cigarettes																				
Any use																				
8th Grade	—	—	—	—	—	—	—	—	—	—	14.3	15.5	16.7	18.6	19.1	21.0	19.4	19.1	17.5	-1.6s
10th Grade	—	—	—	—	—	—	—	—	—	—	20.8	21.5	24.7	25.4	27.9	30.4	29.8	27.6	25.7	-1.9
12th Grade	—	—	—	—	—	—	—	—	—	—	28.3	27.8	29.9	31.2	33.5	34.0	36.5	35.1	34.6	-0.5
Smokeless Tobacco[4]																				
8th Grade	—	—	—	—	—	—	—	—	—	—	6.9	7.0	6.6	7.7	7.1	7.1	5.5	4.8	4.5	-0.3
10th Grade	—	—	—	—	—	—	—	—	—	—	10.0	9.6	10.4	10.5	9.7	8.6	8.9	7.5	6.5	-1.0
12th Grade	—	—	—	—	—	—	—	—	—	—	—	11.4	10.7	11.1	12.2	9.8	9.7	8.8	8.4	-0.4
Steroids[4]																				
8th Grade	1.0	1.1	0.9	1.2	1.0	0.9	1.0	1.2	1.7	+0.5sss	0.4	0.5	0.5	0.5	0.6	0.4	0.5	0.5	0.7	+0.2s
10th Grade	1.1	1.1	1.0	1.1	1.2	1.2	1.2	1.2	1.7	+0.5ss	0.6	0.6	0.5	0.6	0.6	0.5	0.7	0.6	0.9	+0.3s
12th Grade	1.4	1.1	1.2	1.3	1.5	1.4	1.4	1.7	1.8	+0.1	0.8	0.6	0.7	0.9	0.7	0.7	1.0	1.1	0.9	-0.2

(FOOTNOTES are presented after Table 3)

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TABLE 3

Trends in 30-Day Prevalence of Daily Use of Various Drugs for Eighth, Tenth, and Twelfth Graders

	Daily									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
Marijuana/Hashish[1]										
8th Grade	0.2	0.2	0.4	0.7	0.8	1.5	1.1	1.1	1.4	+0.3
10th Grade	0.8	0.8	1.0	2.2	2.8	3.5	3.7	3.6	3.8	+0.2
12th Grade	2.0	1.9	2.4	3.6	4.6	4.9	5.8	5.6	6.0	+0.4
Alcohol[8]										
Any daily use										
8th Grade	0.5	0.6	0.8	—	—	—	—	—	—	—
			1.0	1.0	0.7	1.0	0.8	0.9	1.0	+0.1
10th Grade	1.3	1.2	1.6	—	—	—	—	—	—	—
			1.8	1.7	1.7	1.6	1.7	1.9	1.9	0.0
12th Grade	3.6	3.4	2.5	—	—	—	—	—	—	—
			3.4	2.9	3.5	3.7	3.9	3.9	3.4	-0.6s
5+ drinks in a row in last 2 weeks										
8th Grade	12.9	13.4	13.5	14.5	14.5	15.6	14.5	13.7	15.2	+1.5s
10th Grade	22.9	21.1	23.0	23.6	24.0	24.8	25.1	24.3	25.6	+1.3
12th Grade	29.8	27.9	27.5	28.2	29.8	30.2	31.3	31.5	30.8	-0.7
Cigarettes										
Any daily use										
8th Grade	7.2	7.0	8.3	8.8	9.3	10.4	9.0	8.8	8.1	-0.7
10th Grade	12.6	12.3	14.2	14.6	16.3	18.3	18.0	15.8	15.9	+0.1
12th Grade	18.5	17.2	19.0	19.4	21.6	22.2	24.6	22.4	23.1	+0.7
1/2 pack+/day										
8th Grade	3.1	2.9	3.5	3.6	3.4	4.3	3.5	3.6	3.3	-0.3
10th Grade	6.5	6.0	7.0	7.6	8.3	9.4	8.6	7.9	7.6	-0.3
12th Grade	10.7	10.0	10.9	11.2	12.4	13.0	14.3	12.6	13.2	+0.6
Smokeless Tobacco[4]										
8th Grade	1.6	1.8	1.5	1.9	1.2	1.5	1.0	1.0	0.9	-0.1
10th Grade	3.3	3.0	3.3	3.0	2.7	2.2	2.2	2.2	1.5	-0.7
12th Grade	—	4.3	3.3	3.9	3.6	3.3	4.4	3.2	2.9	-0.3

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(FOOTNOTES are presented on the next page)

Footnotes for Table 1 to Table 3

NOTES: Level of significance of difference between the two years: s = .05, ss = .01, sss = .001.
"—" indicates data not available. "*" indicates less than .05 percent but greater than 0 percent.
Any apparent inconsistency between the change estimate and the prevalence of use estimates for the two years is due to rounding error.
SOURCE: The Monitoring the Future Study, the University of Michigan.

Approximate Weighted Ns	1991	1992	1993	1994	1995	1996	1997	1998	1999
8th Grade	17,500	18,600	18,300	17,300	17,500	17,800	18,600	18,100	16,700
10th Grade	14,800	14,800	15,300	15,800	17,000	15,600	15,500	15,000	13,600
12th Grade	15,000	15,800	16,300	15,400	15,400	14,300	15,400	15,200	13,600

[a]For 12th graders only: Use of "any illicit drug" includes any use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin, or any use of other narcotics, amphetamines, barbiturates, or tranquilizers not under a doctor's orders. For 8th and 10th graders: The use of other narcotics and barbiturates has been excluded, because these younger respondents appear to overreport use (perhaps because they include the use of nonprescription drugs in their answers).

[b]For 12th graders only: Data based on five of six forms in 1991-98; N is five-sixths of N indicated. Data based on three of six forms beginning in 1999; N is one-half of N indicated.

[c]Inhalants are unadjusted for underreporting of amyl and butyl nitrites; hallucinogens are unadjusted for underreporting of PCP.

[d]For 8th and 10th graders only: Smokeless tobacco data based on one of two forms for 1991–96 and on two of four forms beginning in 1997; N is one-half of N indicated. MDMA data based on one-third of N indicated due to changes on the questionnaire forms. For 12th graders only: Data based on one form; N is one-sixth of N indicated.

[e]For 12th graders only: Data based on four of six forms; N is four-sixths of N indicated.

[f]In 1995, the heroin question was changed in three of six forms for 12th graders and in one of two forms for 8th and 10th graders. Separate questions were asked for use with injection and without injection. Data presented here represent the combined data from all forms. In 1996, the heroin question was changed in all remaining 8th and 10th grade forms.

[g]Only drug use which was not under a doctor's orders is included here.

[h]For 8th and 10th graders only: Data based on one of four forms; N is one-third of N indicated.

[i]For 12th graders only: Data based on two of six forms; N is two-sixths of N indicated.

[j]For 8th and 10th graders only: Data based on one of two forms in 1996–97; N is one-half of N indicated. Data based on three of four forms in 1998; N is two-thirds of N indicated. Data based on two of four forms beginning in 1999; N is one-third of N indicated.

[k]For all grades: In 1993, the question text was changed slightly in half of the forms to indicate that a "drink" meant "more than a few sips." The data in the upper line for alcohol came from forms using the original wording, while the data in the lower line came from forms using the revised wording. In 1993, each line of data was based on one of two forms for the 8th and 10th graders and on three of six forms for the 12th graders. N is one-half of N indicated for all groups. Data for 1994–99 were based on all forms for all grades.

[l]Daily use is defined as use on twenty or more occasions in the past thirty days except for cigarettes and smokeless tobacco, for which actual daily use is measured, and for 5+ drinks, for which the prevalence or having five or more drinks in a row in the last two weeks is measured.

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TABLE 4

Trends in Harmfulness of Drugs as Perceived by Eighth, Tenth, and Twelfth Graders, 1991–99

How much do you think people risk harming themselves (physically or in other ways), if they . . .	Percentage saying "great risk"*																											
	8th Grade									'98–'99	10th Grade									'98–'99	12th Grade									'98–'99
	1991	1992	1993	1994	1995	1996	1997	1998	1999	change	1991	1992	1993	1994	1995	1996	1997	1998	1999	change	1991	1992	1993	1994	1995	1996	1997	1998	1999	change
Try marijuana once or twice	40.4	39.1	36.2	31.6	28.9	27.9	25.3	28.1	28.0	0.0	30.0	31.9	29.7	24.4	21.5	20.0	18.8	19.6	19.2	-0.4	27.1	24.5	21.9	19.5	16.3	15.6	14.9	16.7	15.7	-1.0
Smoke marijuana occasionally	57.9	56.3	53.8	48.6	45.9	44.3	43.1	45.0	45.7	+0.7	48.6	48.9	46.1	38.9	35.4	32.8	31.9	32.5	33.5	+1.0	40.6	39.6	35.6	30.1	25.6	25.9	24.7	24.4	23.9	-0.5
Smoke marijuana regularly	83.8	82.0	79.6	74.3	73.0	70.9	72.7	73.0	73.3	+0.3	82.1	81.1	78.5	71.3	67.9	65.9	65.9	65.8	65.9	+0.2	78.6	76.5	72.5	65.0	60.8	59.9	58.1	58.5	57.4	-1.1
Try inhalants once or twice[b]	35.9	37.0	36.5	37.9	36.4	40.8	40.1	38.9	40.8	+1.9	37.8	38.7	40.9	42.7	41.6	47.2	47.5	45.8	48.2	+2.3s	—	—	—	—	—	—	—	—	—	—
Try inhalants regularly[b]	65.6	64.4	64.6	65.5	64.8	68.2	68.7	67.2	68.8	+1.6	69.8	67.9	69.6	71.5	71.8	75.8	74.5	73.3	76.3	+3.0ss	—	—	—	—	—	—	—	—	—	—
Take LSD once or twice[c]	—	—	42.1	38.3	36.7	36.5	37.0	34.9	34.1	-0.8	—	—	48.7	46.5	44.7	45.1	44.5	43.5	45.0	+1.5	46.6	42.3	39.5	38.8	36.4	36.2	34.7	37.4	34.9	-2.5
Take LSD regularly[c]	—	—	68.3	65.8	64.4	63.6	64.1	59.6	58.8	-0.8	—	—	78.9	75.9	75.5	75.3	73.8	72.3	73.9	+1.6	84.3	81.8	79.4	79.1	78.1	77.8	76.6	76.5	76.1	-0.4
Try crack once or twice[b]	62.8	61.2	57.2	54.4	50.8	51.0	49.9	49.3	48.7	-0.6	70.4	69.6	66.6	64.7	60.9	60.9	59.2	58.0	57.8	-0.1	60.6	62.4	57.6	58.4	54.6	56.0	54.0	52.2	48.2	-4.0s
Take crack occasionally[b]	82.2	79.6	76.8	74.4	72.1	71.6	71.2	70.6	70.6	0.0	87.4	86.4	84.4	83.1	81.2	80.3	78.7	77.5	79.1	+1.7	76.5	76.3	73.9	73.8	72.8	71.4	70.5	68.7	67.3	-1.4
Try cocaine powder once or twice[b]	55.5	54.1	50.7	48.4	44.9	45.2	45.0	44.0	43.3	-0.6	59.1	59.2	57.5	56.4	53.5	53.6	52.2	50.9	51.6	+0.7	53.6	57.1	53.2	55.4	52.0	53.2	51.4	48.5	46.1	-2.4
Take cocaine powder occasionally[b]	77.0	74.3	71.8	69.1	66.4	65.7	65.8	65.2	65.4	+0.1	82.2	80.1	79.1	77.8	75.6	75.0	73.9	71.8	73.6	+1.8	69.8	70.8	68.6	70.6	69.1	68.8	67.7	65.4	64.2	-1.2
Try heroin once or twice without using a needle[c]	—	—	—	—	60.1	61.3	63.0	62.8	63.0	+0.2	—	—	—	—	70.7	72.1	73.1	71.7	73.7	+2.0	—	—	—	—	55.6	58.6	60.5	59.6	58.5	-1.1
Take heroin occasionally without using a needle[c]	—	—	—	—	76.8	76.6	79.2	79.0	78.9	-0.1	—	—	—	—	85.1	85.8	86.5	84.9	86.5	+1.6	—	—	—	—	71.2	71.0	74.3	73.4	73.6	+0.2
Try one or two drinks of an alcoholic beverage (beer, wine, liquor)	11.0	12.1	12.4	11.6	11.6	11.8	10.4	12.1	11.6	-0.5	9.0	10.1	10.9	9.4	9.3	8.9	9.0	10.1	10.5	+0.4	9.1	8.6	8.2	7.6	5.9	7.3	6.7	8.0	8.3	+0.3
Take one or two drinks nearly every day	31.8	32.4	32.6	29.9	30.5	28.6	29.1	30.3	29.7	-0.6	36.1	36.8	35.9	32.5	31.7	31.2	31.8	31.9	32.9	+0.9	32.7	30.6	28.2	27.0	24.8	25.1	24.8	24.3	21.8	-2.5
Have five or more drinks once or twice each weekend	59.1	58.0	57.7	54.7	54.1	51.8	55.6	56.0	55.3	-0.8	54.7	55.9	54.9	52.9	52.0	50.9	51.8	52.5	51.9	-0.6	48.6	49.0	48.3	46.5	45.2	49.5	43.0	42.8	43.1	+0.3
Smoke one or more packs of cigarettes per day[d]	51.6	50.8	52.7	50.8	49.8	50.4	52.6	54.3	54.8	+0.5	60.3	59.3	60.7	59.0	57.0	57.9	59.9	61.9	62.7	+0.8	69.4	69.2	69.5	67.6	65.6	68.2	68.7	70.8	70.8	0.0
Use smokeless tobacco regularly	35.1	35.1	36.9	35.5	33.5	34.0	35.2	36.5	37.1	+0.6	40.3	39.6	44.2	42.2	38.2	41.0	42.2	42.8	44.2	+1.4	37.4	35.5	38.9	36.6	33.2	37.4	38.6	40.9	41.1	+0.2
Take steroids[e]	64.2	69.5	70.2	67.6	—	—	—	—	—	—	67.1	72.7	73.4	72.5	—	—	—	—	—	—	65.6	70.7	69.1	66.1	66.4	67.6	67.2	68.1	62.1	
Approx. N (in thousands) =	*17.4*	*18.7*	*18.4*	*17.4*	*17.5*	*17.9*	*18.8*	*18.1*	*16.7*		*14.7*	*14.8*	*15.3*	*15.9*	*17.0*	*15.7*	*15.6*	*15.0*	*13.6*		*2.5*	*2.7*	*2.8*	*2.6*	*2.6*	*2.4*	*2.6*	*2.5*	*2.3*	

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available.
SOURCE: The Monitoring the Future Study, the University of Michigan.

*Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, drug unfamiliar.
[b]8th and 10th grade: Beginning in 1997, data based on two-thirds of N indicated due to changes in questionnaire forms.
[c]8th and 10th grade: Data based on one of two forms in 1993 and 1994; N is one-half of N indicated. Beginning in 1997, data based on one-third of N indicated due to changes in questionnaire forms.
[d]8th and 10th grade: Beginning in 1999, data based on two-thirds of N indicated due to changes in questionnaire forms.
[e]8th and 10th grade: Data based on two forms in 1991 and 1992. Data based on one of two forms in 1993 and 1994; N is one-half of N indicated.

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TABLE 5

Trends in Disapproval of Drug Use by Eighth, Tenth, and Twelfth Graders, 1991–99

Percent who "disapprove" or "strongly disapprove"*

Do you disapprove of people who . . .	8th Grade									'98–'99	10th Grade									'98–'99	12th Grade[b]									'98–'99
	1991	1992	1993	1994	1995	1996	1997	1998	1999	change	1991	1992	1993	1994	1995	1996	1997	1998	1999	change	1991	1992	1993	1994	1995	1996	1997	1998	1999	change
Try marijuana once or twice	84.6	82.1	79.2	72.9	70.7	67.5	67.6	69.0	70.7	+1.8s	74.6	74.8	70.3	62.4	59.8	55.5	54.1	56.0	56.2	+0.2	68.7	69.9	63.3	57.6	56.7	52.5	51.0	51.6	48.8	-2.8
Smoke marijuana occasionally	89.5	88.1	85.7	80.9	79.7	76.5	78.1	78.4	79.3	+0.9	83.7	83.6	79.4	72.3	70.0	66.9	66.2	67.3	68.2	+1.0	79.4	79.7	75.5	68.9	66.7	62.9	63.2	64.4	62.5	-2.0
Smoke marijuana regularly	92.1	90.8	88.9	85.3	85.1	82.8	84.6	84.5	84.5	0.0	90.4	90.0	87.4	82.2	81.1	79.7	79.7	80.1	79.8	-0.3	89.3	90.1	87.6	82.3	81.9	80.0	78.8	81.2	78.6	-2.6
Try inhalants once or twice[c]	84.9	84.0	82.5	81.6	81.8	82.9	84.1	83.0	85.2	+2.2s	85.2	85.6	84.8	84.9	84.5	86.0	86.9	85.6	88.4	+2.8sss	—	—	—	—	—	—	—	—	—	—
Take inhalants regularly[c]	90.6	90.0	88.9	88.1	88.8	89.3	90.3	89.5	90.3	+0.8	91.0	91.5	90.9	91.0	90.9	91.7	91.7	91.1	92.4	+1.2s	—	—	—	—	—	—	—	—	—	—
Try LSD once or twice[d]	—	—	77.1	75.2	71.6	70.9	72.1	69.1	69.4	+0.3	—	—	82.1	79.3	77.9	76.8	76.6	76.7	77.8	+1.1	90.1	88.1	85.9	82.5	81.1	79.6	80.5	82.1	83.0	+0.9
Take LSD regularly[d]	—	—	79.8	78.4	75.8	75.3	76.3	72.5	72.5	-0.1	—	—	86.8	85.6	84.8	84.5	83.4	82.9	84.3	+1.4	96.4	95.5	95.8	94.3	92.5	93.2	92.9	93.5	94.3	+0.8
Try crack once or twice[c]	91.7	90.7	89.1	86.9	85.9	85.0	85.7	85.4	86.0	+0.6	92.5	92.5	91.4	89.9	88.7	88.2	87.4	87.1	87.8	+0.8	92.1	93.1	89.9	89.5	91.4	87.4	87.0	86.7	87.6	+0.9
Take crack occasionally[c]	93.3	92.5	91.7	89.9	89.8	89.3	90.3	89.5	89.9	+0.4	94.3	94.4	93.6	92.5	91.7	91.9	91.0	90.6	91.5	+0.8	94.2	95.0	92.8	92.8	94.0	91.2	91.3	90.9	92.3	+1.4
Try cocaine powder once or twice[c]	91.2	89.6	88.5	86.1	85.3	83.9	85.1	84.5	85.2	+0.7	90.8	91.1	90.0	88.1	86.8	86.1	85.1	84.9	86.0	+1.1	88.0	89.4	86.6	87.1	88.3	83.1	83.0	83.1	84.3	+1.2
Take cocaine powder occasionally[c]	93.1	92.4	91.6	89.7	89.7	88.7	90.1	89.3	89.9	+0.5	94.0	94.0	93.2	92.1	91.4	91.1	90.4	89.7	90.7	+1.0	93.0	93.4	91.2	91.0	92.7	89.7	89.3	88.7	90.0	+1.3
Try heroin once or twice without using a needle[d]	—	—	—	—	85.8	85.0	87.7	87.3	88.0	+0.6	—	—	—	—	89.7	89.5	89.1	88.6	90.1	+1.4	—	—	—	—	92.9	90.8	92.3	93.0	92.6	-0.4
Take heroin occasionally without using a needle[d]	—	—	—	—	88.5	87.7	90.1	89.7	90.2	+0.6	—	—	—	—	91.6	91.7	91.4	90.5	91.8	+1.3	—	—	—	—	94.7	93.2	94.4	94.3	93.8	-0.5
Try one or two drinks of an alcoholic beverage (beer, wine, liquor)	51.7	52.2	50.9	47.8	48.0	45.5	45.7	47.5	48.3	+0.9	37.6	39.9	38.5	36.5	36.1	34.2	33.7	34.7	35.1	+0.3	29.8	33.0	30.1	28.4	27.3	26.5	26.1	24.5	24.6	+0.1
Take one or two drinks nearly every day	82.2	81.0	79.6	76.7	75.9	74.1	76.6	76.9	77.0	+0.1	81.7	81.7	78.6	75.2	75.4	73.8	75.4	74.6	75.4	+0.8	76.5	75.9	77.8	73.1	73.3	70.8	70.0	69.4	67.2	-2.2
Have five or more drinks once or twice each weekend	85.2	83.9	83.3	80.7	80.7	79.1	81.3	81.0	80.3	-0.7	76.7	77.6	74.7	72.3	72.2	70.7	70.2	70.5	69.9	-0.6	67.4	70.7	70.1	65.1	66.7	64.7	65.0	63.8	62.7	-1.1
Smoke one or more packs of cigarettes per day*	82.8	82.3	80.6	78.4	78.6	77.3	80.3	80.0	81.4	+1.4	79.4	77.8	76.5	73.9	73.2	71.6	73.8	75.3	76.1	+0.8	71.4	73.5	70.6	69.8	68.2	67.2	67.1	68.8	69.5	+0.7
Use smokeless tobacco regularly	79.1	77.2	77.1	75.1	74.0	74.1	76.5	76.3	78.0	+1.8s	75.4	74.6	73.8	71.2	71.0	71.0	72.3	73.2	75.1	+1.8s	—	—	—	—	—	—	—	—	—	—
Take steroids[f]	89.8	90.3	89.9	87.9	—	—	—	—	—	—	90.0	91.0	91.2	90.8	—	—	—	—	—	—	90.5	92.1	92.1	91.9	91.0	91.7	91.4	90.8	88.9	-1.9
Approx. N (in thousands) =	*17.4*	*18.5*	*18.4*	*17.4*	*17.6*	*18.0*	*18.8*	*18.1*	*16.7*		*14.8*	*14.8*	*15.3*	*15.9*	*17.0*	*15.7*	*15.6*	*15.0*	*13.6*		*2.5*	*2.6*	*2.7*	*2.6*	*2.6*	*2.4*	*2.6*	*2.5*	*2.3*	

NOTES: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available.
SOURCE: The Monitoring the Future Study, the University of Michigan.

*Answer alternatives were: (1) Don't disapprove, (2) Disapprove, and (3) Strongly disapprove. For 8th and 10th grades, there was another category—"Can't say, drug unfamiliar"—which was included in the calculation of these percentages.
[b]The twelfth grade questions ask about people who are 18 or older.
[c]8th and 10th grade: Beginning in 1997, data based on two-thirds of N indicated due to changes in questionnaire forms.
[d]8th and 10th grade: Data based on one of two forms in 1993–96; N is one-half of N indicated. Beginning in 1997, data based on one-third of N indicated due to changes in questionnaire forms.
[e]8th and 10th grade: Beginning in 1999, data based on two-thirds of N indicated due to changes in questionnaire forms.
[f]8th and 10th grade: Data based on two forms in 1991 and 1992 and on one of two forms in 1993 and 1994; N is one-half of N indicated.

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TABLE 6

Trends in Perceived Availability of Drugs by Eighth, Tenth, and Twelfth Graders, 1992–99

How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?	Percent saying "fairly easy" or "very easy" to get*																									
	8th Grade									10th Grade										12th Grade								
	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change	1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change		1992	1993	1994	1995	1996	1997	1998	1999	'98–'99 change
Marijuana	42.3	43.8	49.9	52.4	54.8	54.2	50.6	48.4	-2.2s	65.2	68.4	75.0	78.1	81.1	80.5	77.9	78.2	+0.3		82.7	83.0	85.5	88.5	88.7	89.6	90.4	88.9	-1.5
LSD	21.5	21.8	21.8	23.5	23.6	22.7	19.3	18.3	-1.0	33.6	35.8	36.1	39.8	41.0	38.3	34.0	34.3	+0.2		44.5	49.2	50.8	53.8	51.3	50.7	48.8	44.7	-4.1s
Some other psychedelic	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—			29.9	33.5	33.8	35.8	33.9	33.9	35.1	29.5	-5.7sss
PCP[b]	18.0	18.5	17.7	19.0	19.6	19.2	17.5	17.1	-0.4	23.7	23.4	23.8	24.7	26.8	24.8	23.9	24.5	+0.6		31.7	31.7	31.4	31.0	30.5	30.0	30.7	26.7	-4.0s
MDMA (Ecstasy)	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—			24.2	28.1	31.2	34.2	36.9	38.8	38.2	40.1	+1.9
Cocaine	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—			52.7	48.5	46.6	47.7	48.1	48.5	51.3	47.6	-3.7s
Crack	25.6	25.9	26.9	28.7	27.9	27.5	26.5	25.9	-0.7	33.7	33.0	34.2	34.6	36.4	36.0	36.3	36.5	+0.2		43.5	43.6	40.5	41.9	40.7	40.6	43.8	41.1	-2.7
Cocaine powder	25.7	25.9	26.4	27.8	27.2	26.9	25.7	25.0	-0.7	35.0	34.1	34.5	35.3	36.9	37.1	36.8	36.7	-0.2		48.0	45.4	43.7	43.8	44.4	43.3	45.7	43.7	-2.1
Heroin	19.7	19.8	19.4	21.1	20.6	19.8	18.0	17.5	-0.5	24.3	24.3	24.7	24.6	24.8	24.4	23.0	23.7	+0.8		34.9	33.7	34.1	35.1	32.2	33.8	35.6	32.1	-3.5s
Other narcotics[b]	19.8	19.0	18.3	20.3	20.0	20.6	17.1	16.2	-0.9	26.9	24.9	26.9	27.8	29.4	29.0	26.1	26.6	+0.5		37.1	37.5	38.0	39.8	40.0	38.9	42.8	40.8	-2.0
Amphetamines	32.2	31.4	31.0	33.4	32.6	30.6	27.3	25.9	-1.5	43.4	46.4	46.6	47.7	47.2	44.6	41.0	41.3	+0.3		58.8	61.5	62.0	62.8	59.4	59.8	60.8	58.1	-2.7
Crystal meth. (ice)[b]	16.0	15.1	14.1	16.0	16.3	15.7	16.0	14.7	-1.3	18.8	16.4	17.8	20.7	22.6	22.9	22.1	21.8	-0.3		26.0	26.6	25.6	27.0	26.9	27.6	29.8	27.6	-2.2
Barbiturates	27.4	26.1	25.3	26.5	25.6	24.4	21.1	20.8	-0.3	38.0	38.8	38.3	38.8	38.1	35.6	32.7	33.2	+0.5		44.0	44.5	43.3	42.3	41.4	40.0	40.7	37.9	-2.8
Tranquilizers	22.9	21.4	20.4	21.3	20.4	19.6	18.1	17.3	-0.7	31.6	30.5	29.8	30.6	30.3	28.7	26.5	26.8	+0.3		40.9	41.1	39.2	37.8	36.0	35.4	36.2	32.7	-3.6s
Alcohol	76.2	73.9	74.5	74.9	75.3	74.9	73.1	72.3	-0.8	88.6	88.9	89.8	89.7	90.4	89.0	88.0	88.2	+0.2		—	—	—	—	—	—	—	95.0	
Cigarettes	77.8	75.5	76.1	76.4	76.9	76.0	73.6	71.5	-2.1ss	89.1	89.4	90.3	90.7	91.3	89.6	88.1	88.3	+0.2		—	—	—	—	—	—	—	—	
Steroids	24.0	22.7	23.1	23.8	24.1	23.6	22.3	22.6	+0.3	37.6	33.6	33.6	34.8	34.8	34.2	33.0	35.9	+2.9ss		46.8	44.8	42.9	45.5	40.3	41.7	44.5	44.6	+0.1
Approx. N =	*8355*	*16775*	*16119*	*15496*	*16318*	*16482*	*16208*	*15397*		*7014*	*14652*	*15192*	*16209*	*14887*	*14856*	*14423*	*13112*			*2586*	*2670*	*2526*	*2552*	*2340*	*2517*	*2520*	*2215*	

NOTES: Level of significance of difference between the two years: s = .05, ss = .01, sss = .001. '—' indicates data not available.
SOURCE: The Monitoring the Future Study, the University of Michigan.

*Answer alternatives were: (1) Probably impossible, (2) Very difficult, (3) Fairly difficult, (4) Fairly easy, and (5) Very easy. For 8th and 10th grades, there was another category—"Can't say, drug unfamiliar"—which was included in the calculation of these percentages.
[b]8th and 10th grade only. Beginning in 1993, data based on one of two forms; N is one-half of N indicated.

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For more information about the Monitoring the Future study
visit our web site at *http://www.MonitoringTheFuture.org.*